



## IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

PLEASE READ THE ENTIRE CONTENTS OF THIS MANUAL PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING WITH LIFT INSTALLATION AND OPERATION YOU AGREE THAT YOU FULLY UNDERSTAND AND COMPREHEND THE FULL CONTENTS OF THIS MANUAL. FORWARD THIS MANUAL TO ALL OPERATORS. FAILURE TO OPERATE THIS EQUIPMENT AS DIRECTED MAY CAUSE INJURY OR DEATH.

MAN REV C 09/12/14  
P/N 5900223

# INSTALLATION AND OPERATION MANUAL

## AUTO STACKER FOUR POST PARKING LIFTS

### MODELS:

PL-14000

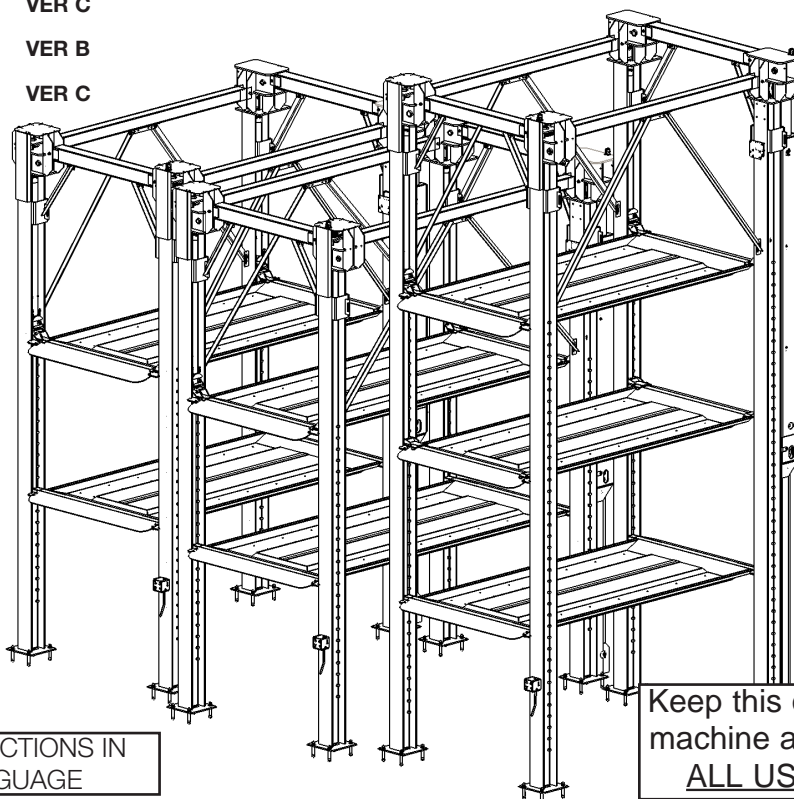
PL-14000XL

PL-18000

VER C

VER B

VER C



ORIGINAL INSTRUCTIONS IN  
ENGLISH LANGUAGE

### RECEIVING

The shipment should be thoroughly inspected as soon as it is received. The signed Bill of Lading is acknowledgement by the shipping carrier as receipt of this product as listed in your invoice as being in a good condition of shipment. If any of these goods listed on this Bill of Lading are missing or damaged, do not accept goods until the shipping carrier makes a notation on the freight bill of the missing or damaged goods. Do this for your own protection.

### BE SAFE

Your new lift was designed and built with safety in mind. However, your overall safety can be increased with proper training and thoughtful operation on the part of the operator. DO NOT operate or repair this equipment without reading this manual and the important safety instructions shown inside. Keep this operation manual near the lift at all times. Make sure that ALL USERS read and understand this manual.

### READ FIRST



Do not operate this machine until you read and understand all the dangers, warnings and cautions in this manual.

Keep this operation manual near the machine at all times. Make sure that ALL USERS read this manual.



1645 Lemonwood Dr.  
Santa Paula, CA. 93060, USA  
Toll Free 1-800-253-2363  
Tel: 1-805-933-9970  
Fax: 1-805-933-9160  
www.bendpak.com






# 14,000 & 18,000 POUND CAPACITY AUTO STACKER PARKING LIFTS

This instruction manual has been prepared especially for you.  
Your new lift is the product of over 40 years of continuous research, testing and development;  
it is the most technically advanced lift on the market today.

## READ THIS ENTIRE MANUAL BEFORE INSTALLATION & OPERATION BEGINS.

RECORD HERE THE LIFT AND  
POWER UNIT INFORMATION WHICH IS LOCATED ON  
THE SERIAL NUMBER  
DATA PLATES ON THE LIFT AND  
ON THE POWER UNIT

Power Unit Model #	_____
Power Unit Date Of Mfg.	_____
Power Unit Serial #	_____
Max Operating Pressure	<u>PL-14,000    2,500 PSI</u>
	<u>PL-14000XL   2,500 PSI</u>
	<u>PL-18000     2,500 PSI</u>

<b>BP BendPak</b> <small>PROVIDING AUTOMOTIVE SERVICE SOLUTIONS</small>		Santa Paula, CA USA <a href="http://www.bendpak.com">www.bendpak.com</a>
Model Number	Lifting Capacity	Serial Number
Date of Manufacture	Power Unit Number	Volt. / Ph. / Freq. / Amp.
Description	Rolling Jack Max.	Air Pressure Max.
Cable Dia.	Conn. Dia.	Cable Lengths
		<b>A</b> <b>C</b>
<b>DANGER!</b> Disconnect Power Before Servicing.		<b>B</b> <b>D</b>
    		WARRANTY VOID IF DATA PLATE IS REMOVED. MADE IN CHINA

This information is required when  
calling for parts or warranty issues.

## PRODUCT WARRANTY

Our comprehensive product warranty means more than a commitment to you; it's also a commitment to the value of your new BendPak lift. For full warranty details and to register your new lift contact your nearest BendPak dealer or visit  
[http:// www.bendpak.com/ support/ warranty/](http://www.bendpak.com/support/warranty/)

### NOTE:

Every effort has been taken to ensure complete and accurate instructions have been included in this manual, however, possible product updates, revisions and or changes may have occurred since this printing. BendPak Ranger reserves the right to change specifications without incurring any obligation for equipment previously or subsequently sold. Not responsible for typographical errors.

## IMPORTANT NOTICE

Do not attempt to install this lift if you have never been trained on basic automotive lift installation procedures.

Never attempt to lift components without proper lifting tools such as forklift or cranes. Stay clear of any moving parts that can fall and cause injury. These instructions must be followed to insure proper installation and operation of your lift. Failure to comply with these instructions can result in serious bodily harm and void product warranty. Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.

PLEASE READ THE ENTIRE CONTENTS OF THIS MANUAL PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING YOU AGREE THAT YOU FULLY UNDERSTAND AND COMPREHEND THE FULL CONTENTS OF THIS MANUAL.

## DEFINITIONS OF HAZARD LEVELS

Identify the hazard levels used in this manual with the following definitions and signal words:



### DANGER

Watch for this symbol: It Means: Immediate hazards which will result in severe personal injury or death.



### WARNING

Watch for this symbol: It Means: Hazards or unsafe practices which could result in severe personal injury or death.



### CAUTION

Watch for this symbol: It Means: Hazards or unsafe practices which may result in minor personal injury or product or property damage.

## OWNER'S RESPONSIBILITY

To maintain the lift and user safety, the responsibility of the owner is to read and follow these instructions:

- ◆ Follow all installation and operation instructions.
- ◆ Make sure installation conforms to all applicable Local, State, and Federal Codes, Rules, and Regulations; such as State and Federal OSHA Regulations and Electrical Codes.
- ◆ Carefully check the lift for correct initial function.
- ◆ Read and follow the safety instructions. Keep them readily available for machine operators.
- ◆ Make certain all operators are properly trained, know how to safely and correctly operate the unit, and are properly supervised.
- ◆ Allow unit operation only with all parts in place and operating safely.
- ◆ Carefully inspect the unit on a regular basis and perform all maintenance as required.
- ◆ Service and maintain the unit only with authorized or approved replacement parts.
- ◆ Keep all instructions permanently with the unit and all decal's on the unit clean and visible.

## BEFORE YOU BEGIN

### Receiving:

The shipment should be thoroughly inspected as soon as it is received. The signed bill of lading is acknowledgement by the carrier of receipt in good condition of shipment covered by your invoice. If any of the goods called for on this bill of lading are shorted or damaged, do not accept them until the carrier makes a notation on the freight bill of the shorted or damaged goods. Do this for your own protection.

**NOTIFY THE CARRIER AT ONCE** if any hidden loss or damage is discovered after receipt and request the carrier to make an inspection. If the carrier will not do so, prepare a signed statement to the effect that you have notified the carrier (on a specific date) and that the carrier has failed to comply with your request.

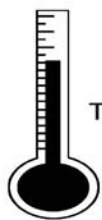
**IT IS DIFFICULT TO COLLECT FOR LOSS OR DAMAGE AFTER YOU HAVE GIVEN THE CARRIER A CLEAR RECEIPT.** File your claim with the carrier promptly. Support your claim with copies of the bill of lading, freight bill, invoice, and photographs, if available. Our willingness to assist in helping you process your claim does not make Ranger Products responsible for collection of claims or replacement of lost or damaged materials.

# TABLE OF CONTENTS

Contents	Page No.
Warranty / Serial Number Information . . . . .	2
Definitions of Hazard Levels . . . . .	3
Owner's Responsibility . . . . .	3
Before You Begin . . . . .	3
Installer/Operator Agreement/ Protective Equipment . . . . .	5
Introduction . . . . .	6
Safety / Warning Instructions . . . . .	6
Tools Required . . . . .	7
Step 1 / Selecting Site . . . . .	7
Step 2 / Floor Requirements . . . . .	7
Concrete Specifications . . . . .	7
Assembly View / Description of Parts . . . . .	8
Floor Plan / General Specifications . . . . .	9-11
Clearances . . . . .	12
Step 3 / Closeout Side Post Installation . . . . .	13-14
Step 4 / Ramp Assembly . . . . .	15-16
Step 5 / Power Side Post Installation . . . . .	16-18
Step 6 / Cable / Sheave Installation . . . . .	18-23
Electrical Wiring . . . . .	24-25
Step 7 / Power Unit Electrical Connection / Mounting the Control Panel . . . . .	26
Step 8 / Hydraulic Fittings . . . . .	26-27
Step 9 / Hydraulic Hose Routing . . . . .	27-29
Step 10 / Lift Start-Up / Final Adjustments . . . . .	30
Step 11 / Bleeding the Cylinder . . . . .	31
Post Installation Checklist . . . . .	31
Step 12 / Operation . . . . .	31
Wire Rope Inspection and Maintenance . . . . .	32
Safe Lift Operation . . . . .	33-34
Troubleshooting Guide . . . . .	37-41
Maintenance Records . . . . .	42
Installation Form . . . . .	43
Part Number Lists . . . . .	44-63

**INSTALLER / OPERATOR  
PLEASE READ AND FULLY  
UNDERSTAND. BY PROCEEDING  
YOU AGREE TO THE FOLLOWING.**

- ◆ I have visually inspected the site where the lift is to be installed and verified the concrete to be in good condition and free of cracks or other defects. I understand that installing a lift on cracked or defective concrete could cause lift failure resulting in personal injury or death.
- ◆ I understand that a level floor is required for proper installation and level lifting.
- ◆ I understand that I am responsible if my floor is of questionable slope and that I will be responsible for all charges related to pouring a new level concrete slab if required and any charges.
- ◆ I understand that BendPak lifts are supplied with concrete fasteners meeting the criteria of the American National Standard "Automotive Lifts - Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-2011, and that I will be responsible for all charges related to any special, regional, structural, and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).
- ◆ I will assume full responsibility for the concrete floor and condition thereof, now or later, where the above equipment model is to be installed. Failure to follow Danger, Warning, and Caution instructions may lead to serious personal injury or death to operator or bystander or damage to property.
- ◆ I understand that BendPak lifts are designed to be installed in indoor locations. Contact factory for outdoor use requirements. Failure to follow installation instructions may lead to serious personal injury or death to operator or bystander or damage to property or lift.



**CAUTION**

The safe operating temperature  
range for this product is  
41° F. - 104 °F.



**THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH IF NOT FOLLOWED  
COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OR YOURSELF AND OTHERS  
AND CAN CAUSE PERSONAL INJURY OR DEATH. READ AND FOLLOW ALL INSTRUCTIONS IN  
THIS MANUAL BEFORE ATTEMPTING TO OPERATE THIS MACHINE.**



Failure to follow  
Danger, Warning, and Caution instructions may lead to  
serious personal injury or death to operator or bystander  
or damage to property.



Please read the entire manual prior to installation.  
Do not operate this machine until you have read and  
have understood all of the Danger, Warning and Caution  
alerts in this manual. For additional copies  
or further information, contact:

**BendPak Inc.**

1645 Lemonwood Dr.  
Santa Paula, CA. 93060  
1-805-933-9970  
[www.bendpak.com](http://www.bendpak.com)

**INSTALLER / OPERATOR  
PROTECTIVE EQUIPMENT**

Personal protective equipment helps makes installation and operation safer, however, it does not take the place of safe operating practices. Always wear durable work clothing during any installation and/or service activity. Shop aprons or shop coats may also be worn, however loose-fitting clothing should be avoided.

Tight-fitting leather gloves are recommended to protect the technician's hands when handling parts. Sturdy leather steel-toe work shoes and oil resistant soles should be used by all service personnel to help prevent injury during typical installation and operation activities.

Eye protection is essential during installation and operation activities. Safety glasses with side shields, goggles, or face shields are acceptable. Back belts provide support during lifting activities and are also helpful in providing worker protection. Consideration should also be given to the use of hearing protection if service activity is performed in an enclosed area, or if noise levels are high.



## INTRODUCTION

1. Carefully remove the crating and packing materials. CAUTION! Be careful when cutting steel banding material as items may become loose and fall causing personal harm or injury.

2. Check the voltage, phase, and proper amperage requirements for the motor shown on the motor plate. Electrical work should be performed only by a certified electrician.

### IMPORTANT SAFETY INSTRUCTIONS

Read these safety instructions entirely. Do not attempt to install this lift if you have never been trained on basic automotive lift installation procedures. Never attempt to lift components without proper lifting tools such as forklift or cranes. Stay clear of any moving parts that may fall and cause injury. When using your garage equipment, basic safety precautions should always be followed, including the following:

1. Read and understand all instructions and all safety warnings before operating lift.
2. Care must be taken as burns can occur from touching hot parts.
3. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged until it has been examined by a qualified service person.
4. If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords rated for less current than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
5. Always unplug equipment from electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.
6. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).
7. Adequate ventilation should be provided when working on operating internal combustion engines.
8. Keep hair, loose clothing, fingers, and all parts of body away from moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
9. DANGER! To reduce the risk of electric shock, do not use on wet surfaces or expose to rain. The power unit used on this lift contains high voltage. Disconnect power at the receptacle or at the circuit breaker switch before performing any electrical repairs. Secure plug so that it cannot be accidentally plugged in during service, or mark circuit breaker switch so that it cannot be accidentally switched on during service.
10. Use only as described in this manual. Use only manufacturer's recommended attachments.
11. ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses, they are not safety glasses.
12. Consider work environment. Keep work area clean. Cluttered work areas invite injuries. Keep areas well lit.
13. Guard against electric shock. This lift must be grounded while in use to protect operator from electric shock. Never connect the green power cord wire to a live terminal. This is for



ground only.

14. Only trained operators should operate this lift. All non-trained personnel should be kept away from the work area. Never let non-trained personnel come in contact with, or operate lift.

15. DO NOT override self-closing lift controls.

16. Clear area if vehicle is in danger of falling.

17. ALWAYS make sure the safeties are engaged before attempting to work on or near a vehicle.

18. WARNING! RISK OF EXPLOSION. This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors. This machine should not be located in a recessed area or below floor level.



19. MAINTAIN WITH CARE. Keep lift clean for better and safer performance. Follow manual for proper lubrication and maintenance instructions. Keep control handles and/or buttons dry, clean and free from grease and oil.

20. Check for damaged parts. Check for alignment of moving parts, breakage of parts or any condition that may affect operation of lift. Do not use lift if any component is broken or damaged.

21. NEVER remove safety related components from the lift. Do not use lift if safety related components are missing or damaged.

22. STAY ALERT. Use common sense and watch what you are doing. Remember, SAFETY FIRST.

23. Installation of this lift requires lifting of very heavy components. Be sure to use the correct lifting tools such as forklifts or cranes to position components. Pay attention to components position once components are lifted. Once lifted, components are falling hazards. Failure to use the correct lifting tools or to pay attention during lifting may result in personal injury or death. A minimum of a two person installation team is recommended for safe lifting practices.

## SAVE THESE INSTRUCTIONS



## TOOLS REQUIRED

- ◆ Rotary Hammer Drill or Similar
- ◆ 3/4" Masonry Bit
- ◆ Hammer
- ◆ 4 Foot Level
- ◆ Open-End Wrench Set: SAE/Metric
- ◆ Socket And Ratchet Set: SAE/Metric
- ◆ Hex-Key / Allen Wrench Set
- ◆ Large Crescent Wrench
- ◆ Large Pipe Wrench
- ◆ Crow Bar
- ◆ Chalk Line
- ◆ Medium Phillips Screwdriver
- ◆ Tape Measure: 25 Foot Minimum
- ◆ Needle Nose Pliers
- ◆ Tall Forklift
- ◆ Tall Crane
- ◆ Tall man lift: 18 Foot minimum rise

## IMPORTANT NOTICE

THESE INSTRUCTIONS MUST BE FOLLOWED TO ENSURE PROPER INSTALLATION AND OPERATION OF YOUR LIFT. FAILURE TO COMPLY WITH THESE INSTRUCTIONS CAN RESULT IN SERIOUS BODILY HARM AND VOID PRODUCT WARRANTY. MANUFACTURER WILL ASSUME NO LIABILITY FOR LOSS OR DAMAGE OF ANY KIND, EXPRESSED OR IMPLIED, RESULTING FROM IMPROPER INSTALLATION OR USE OF THIS PRODUCT.

PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION

### STEP 1 (Selecting Site)

Before installing your new lift, check the following.

1. **LIFT LOCATION:** Always use architectural plans when available. Check the layout dimension against the floor plan requirements making sure that adequate space is available.
2. **OVERHEAD OBSTRUCTIONS:** The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical lines etc.
3. **DEFECTIVE FLOOR:** Visually inspect the site where the lift is to be installed and check for cracked or defective concrete.
4. **OPERATING TEMPERATURE.** Operate lift only between temperatures of 41° -104° F.

### STEP 2 (Floor Requirements)

This lift must be installed on a solid level concrete floor with



no more than 3-degrees of slope. Failure to do so could cause personal injury or death.

A level floor is suggested for proper use and installation and level lifting. If a floor is of questionable slope, consider a survey of the site and/or the possibility of pouring a new level concrete slab.



- ◆ DO NOT install or use this lift on any asphalt surface or any surface other than concrete.
- ◆ DO NOT install or use this lift on expansion seams or on cracked or defective concrete.
- ◆ DO NOT install or use this lift on a second / elevated floor without first consulting building architect.

## CONCRETE SPECIFICATIONS

LIFT MODEL	CONCRETE REQUIREMENTS
PL-14000	7" Min. Thickness / 3,000 PSI
PL-14000XL	7" Min. Thickness / 3,000 PSI
PL-18000	7" Min. Thickness / 3,000 PSI



### DANGER!

ALL MODELS MUST BE INSTALLED ON 3000 PSI CONCRETE ONLY CONFORMING TO THE MINIMUM REQUIREMENTS SHOWN ABOVE. NEW CONCRETE MUST BE ADEQUATELY CURED FOR A MINIMUM OF 28 DAYS.

## IMPORTANT NOTE

BendPak lifts are supplied with installation instructions and concrete fasteners meeting the criteria as prescribed by the American National Standard "Automotive Lifts - Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-2011. Lift buyers are responsible for any special regional structural and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).

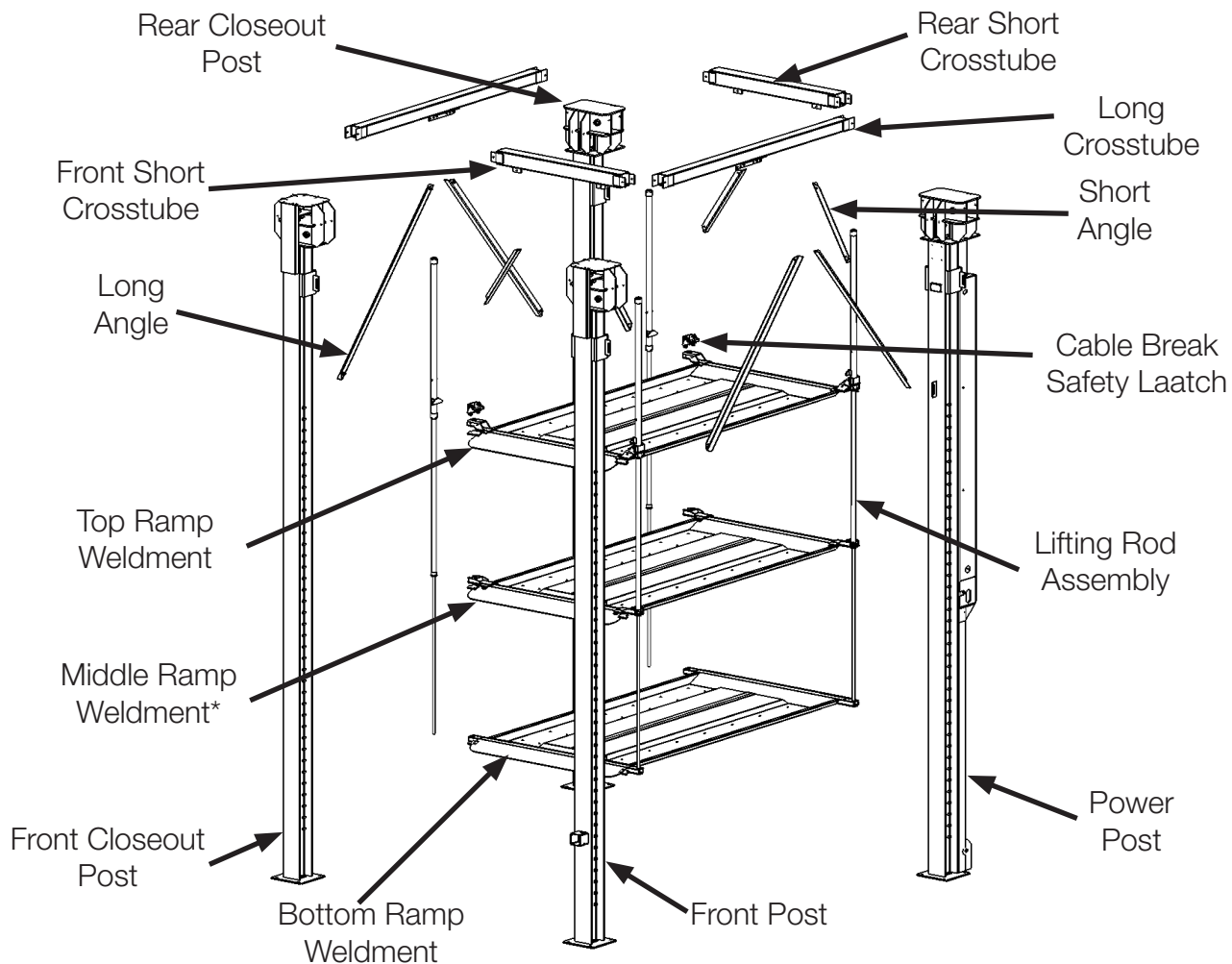


When removing the lift from shipping angles, pay close attention as the ramps and posts can slide and can cause injury. Prior to removing the bolts make sure the ramps and posts are held securely by a fork lift or some other heavy lifting device.

## PARTS INVENTORY

Be sure to take a complete inventory of parts prior to beginning installation.

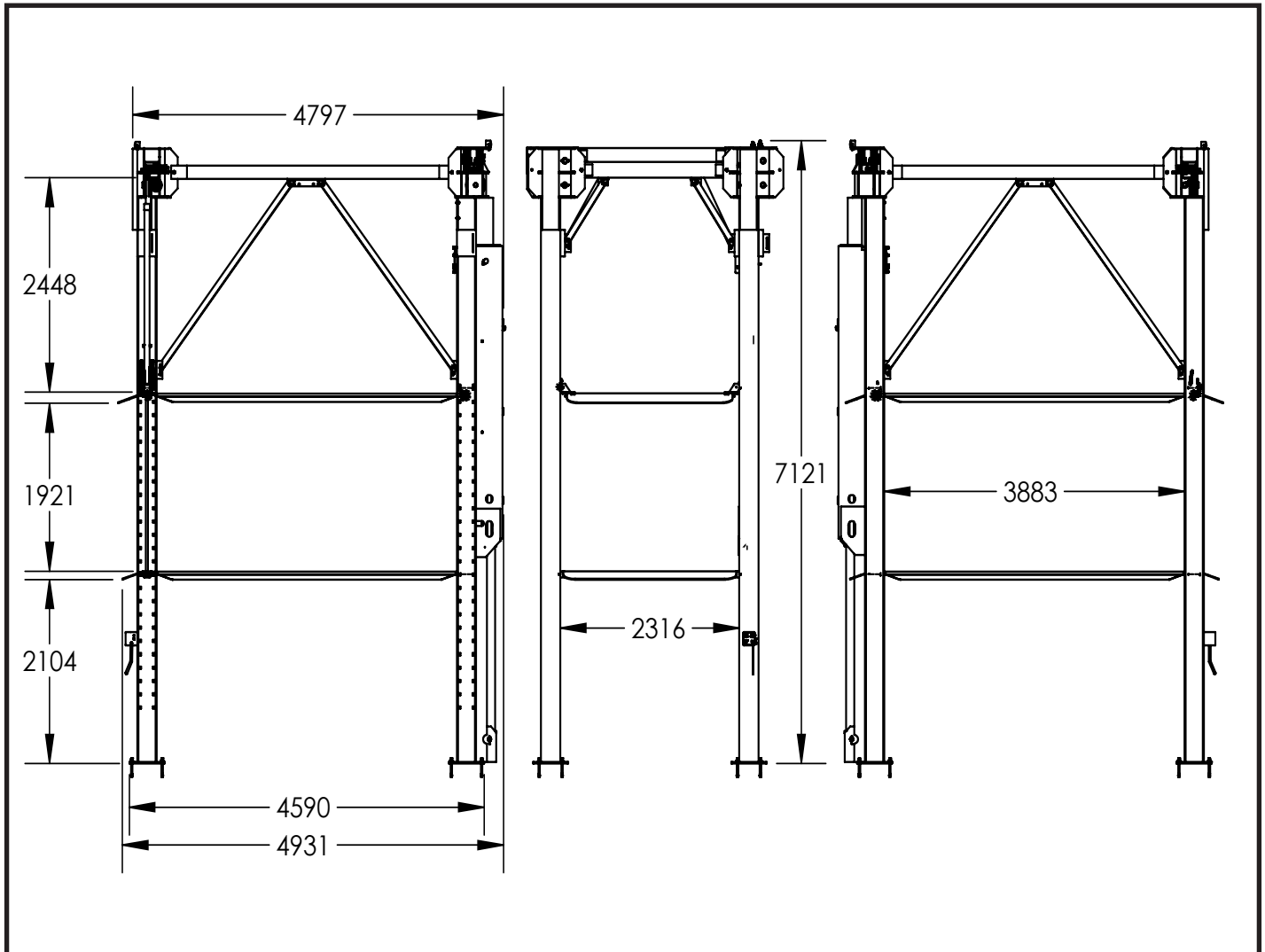
Description	Qty	Description	Qty
Power Post	1	Parts Bag (Packaged in Part Box)	1
Front Post	1	Lifting Rod Assembly	4
Front Closeout Post	1	Long Angle	4
Rear Closeout Post	1	Short Angle	4
Top Ramp Weldment	1	Cable Break Safety Latch	4
Middle Ramp Weldment*	1		
Bottom Ramp Weldment	1	Parts Box (Packing List Enclosed)	1
Rear Short Crosstube	1		
Front Short Crosstube	1		
Long Crosstube	1		



\*Included with PL-18000 models only



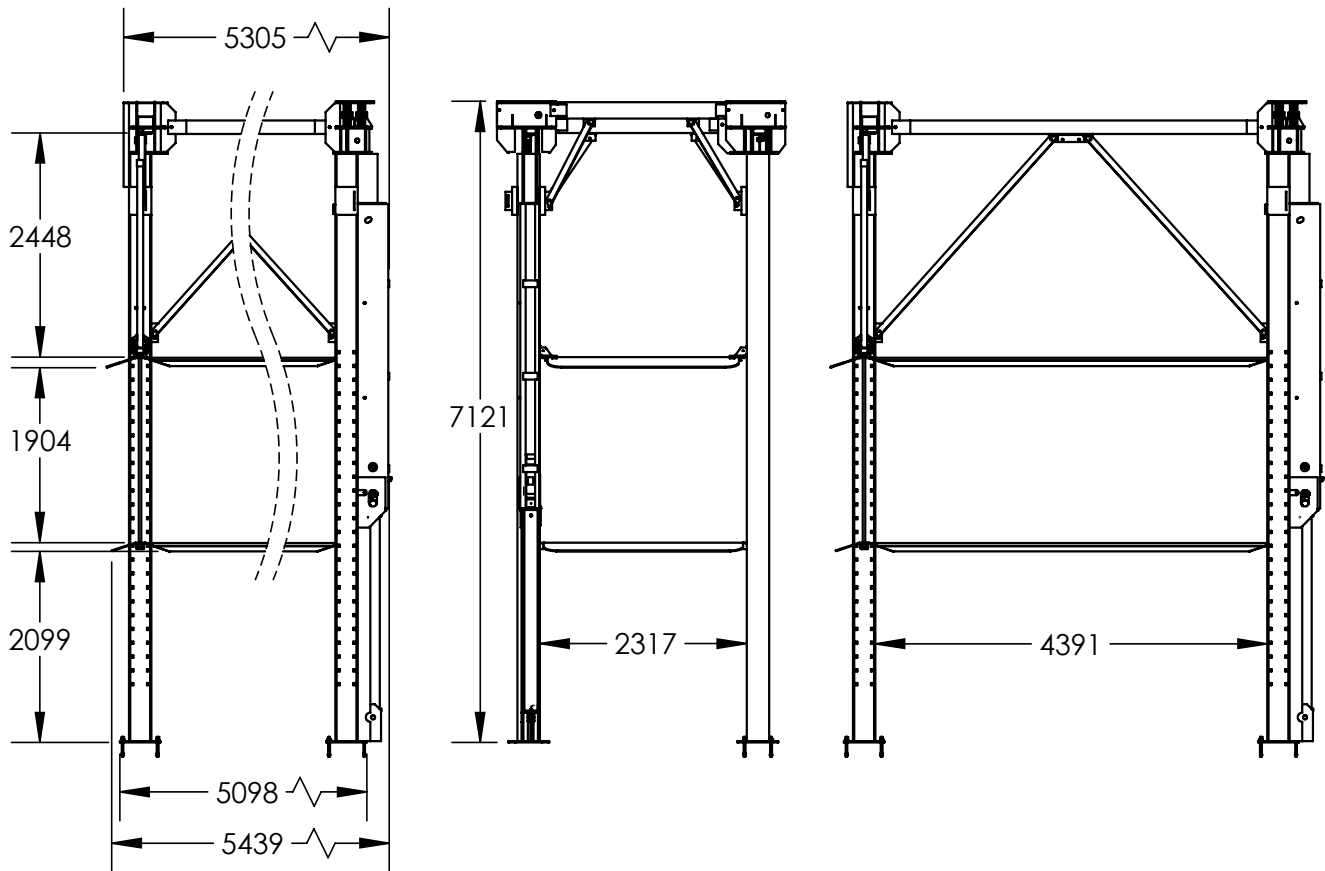
## FLOOR PLAN / GENERAL SPECIFICATIONS



### PL-14000 GENERAL SPECIFICATIONS

Lifting Capacity	14,000 lbs / 6,350 Kg.
Max capacity / Top Ramp	7,000 lbs. / 3,175 kg
Max capacity / Top Ramp Front Axle	3,500 lbs. / 1,588 kg
Max capacity / Top Ramp Rear Axle	3,500 lbs. / 1,588 kg
Max capacity / Bottom Ramp	7,000 lbs. / 3,175 kg
Max capacity / Bottom Ramp Front Axle	3,500 lbs. / 1,588 kg
Max capacity / Bottom Ramp Rear Axle	3,500 lbs. / 1,588 kg
Ramp Locking Positions	2
Lock Spacing	80" / 2032mm
Lifting Time	140 Seconds
Standard Motor (**)	220 VAC / 60Hz 1 Ph.
** Special Voltages Available upon Request.	
The design, material and specifications are subject to change without notice.	

## FLOOR PLAN / GENERAL SPECIFICATIONS



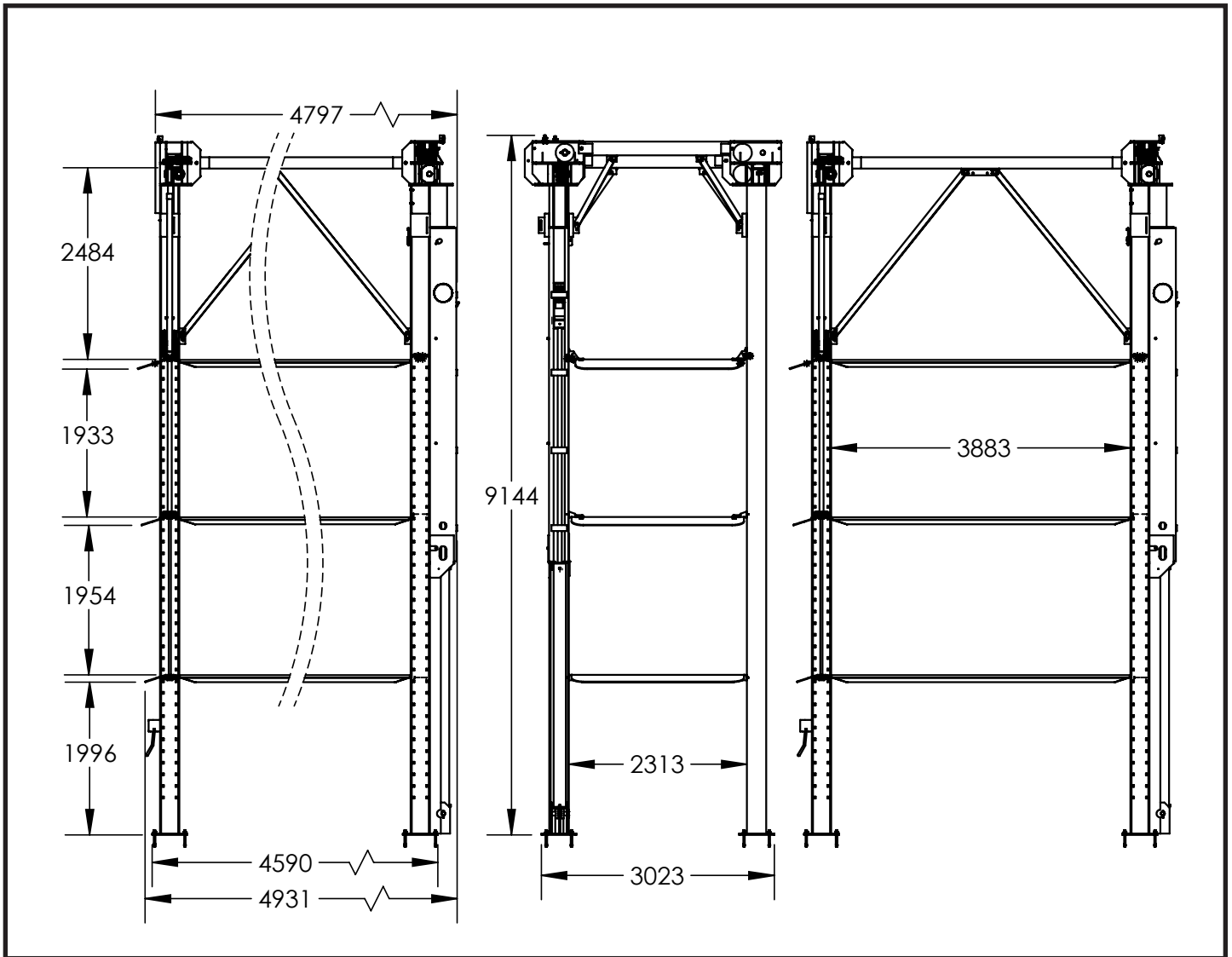
### PL-14000XL GENERAL SPECIFICATIONS

Lifting Capacity	14,000 lbs / 6,350 Kg.
Max capacity / Top Ramp	7,000 lbs. / 3,175 kg
Max capacity / Top Ramp Front Axle	3,500 lbs. / 1,588 kg
Max capacity / Top Ramp Rear Axle	3,500 lbs. / 1,588 kg
Max capacity / Bottom Ramp	7,000 lbs. / 3,175 kg
Max capacity / Bottom Ramp Front Axle	3,500 lbs. / 1,588 kg
Max capacity / Bottom Ramp Rear Axle	3,500 lbs. / 1,588 kg
Ramp Locking Positions	2
Lock Spacing	80"/ 2032mm
Lifting Time	140 Seconds
Standard Motor (**)	220 VAC / 60Hz 1 Ph.

\*\* Special Voltages Available upon Request.

The design, material and specifications are subject to change without notice.

## FLOOR PLAN / GENERAL SPECIFICATIONS



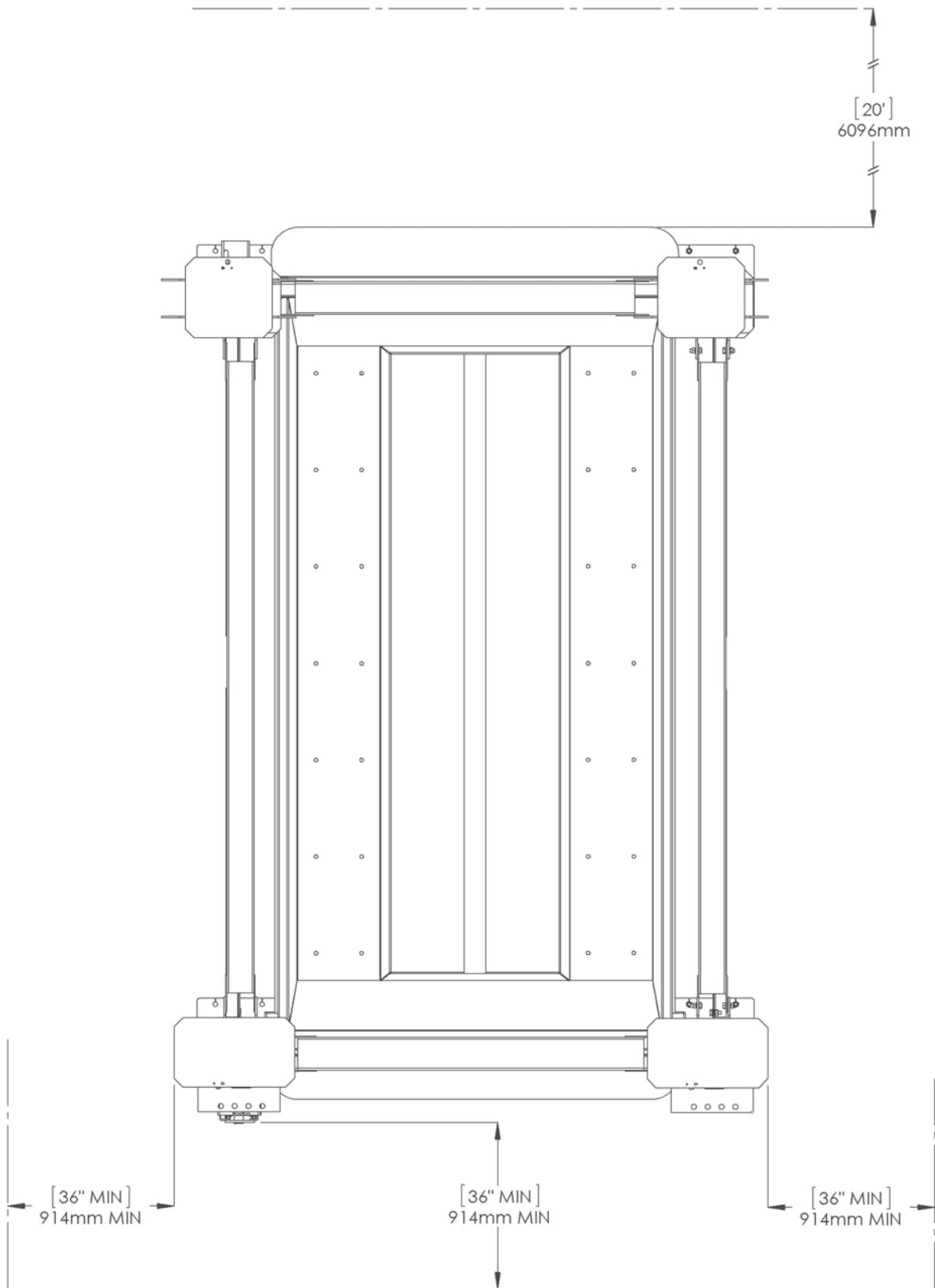
### PL-18000 GENERAL SPECIFICATIONS

Lifting Capacity	18,000 lbs / 8,164 Kg
Max capacity / Top Ramp	6,000 lbs / 2,721 kg
Max capacity / Top Ramp Front Axle	3,000 lbs / 1,360 kg
Max capacity / Top Ramp Rear Axle	3,000 lbs / 1,360 kg
Max capacity / Middle Ramp	6,000 lbs / 2,721 kg
Max capacity / Middle Ramp Front Axle	3,000 lbs / 1,360 kg
Max capacity / Middle Ramp Rear Axle	3,000 lbs / 1,360 kg
Max capacity / Bottom Ramp	6,000 lbs / 2,721 kg
Max capacity / Bottom Ramp Front Axle	3,000 lbs / 1,360 kg
Max capacity / Bottom Ramp Rear Axle	3,000 lbs / 1,360 kg
Ramp Locking Positions	3
Lock Spacing	80" / 2032mm
Lifting Time	210 Seconds
Standard Motor (**)	220 VAC / 60Hz 1 Ph.

\*\* Special Voltages Available upon Request.

The design, material and specifications are subject to change without notice.

## CLEARANCES PL-14000/18000



LIFT HEIGHT CLEARNACE NOTE: There must be a 3" MIN distance from the top of the parking lift to the nearest obstruction or ceiling.

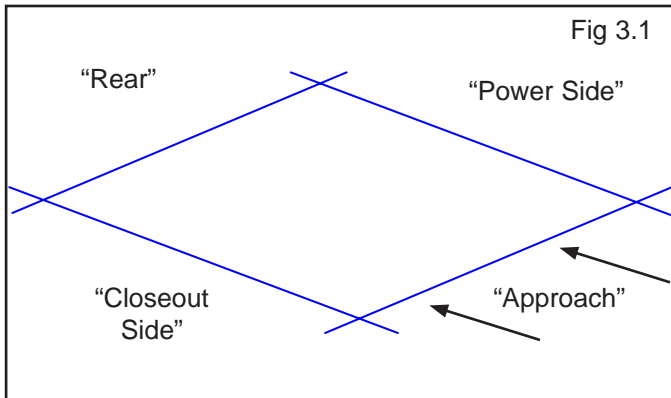
### STEP 3 (Closeout Side Post Installation)

## WARNING

### WARNING!

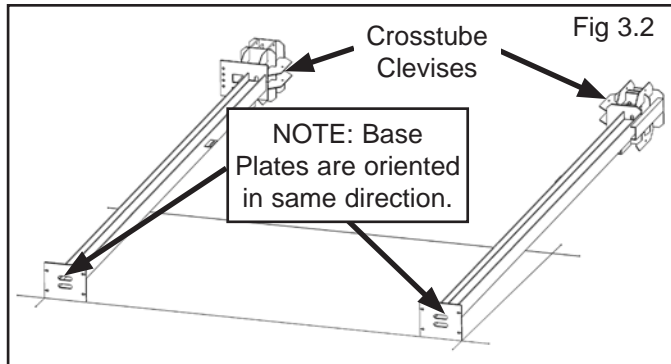
THIS STEP REQUIRES LIFTING OF VERY HEAVY COMPONENTS. BE SURE TO USE THE CORRECT LIFTING TOOLS SUCH AS FORKLIFTS OR CRANES TO POSITION COMPONENTS. PAY ATTENTION TO COMPONENTS POSITION ONCE COMPONENTS ARE LIFTED. ONCE LIFTED, COMPONENTS ARE FALLING HAZARDS. FAILURE TO USE THE CORRECT LIFTING TOOLS OR TO PAY ATTENTION DURING LIFTING MAY RESULT IN PERSONAL INJURY OR DEATH. A MINIMUM OF A TWO PERSON INSTALLATION TEAM IS RECOMMENDED FOR SAFE LIFTING PRACTICES.

1. Place a chalk lines on the floor according to the floor plan layout. Be sure to take correct "Rear" clearance spacing into consideration for the Hydraulic Power Unit. (See Fig 3.1)

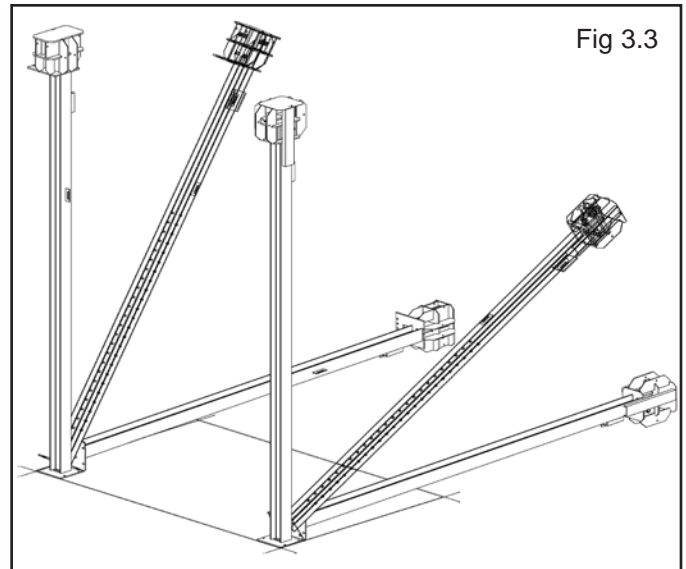


2. Locate the Front and Rear Closeout Posts. Using a forklift or crane lay them next to each other on the floor oriented so that the base plates are on the same side and the Crosstube Clevises are oriented inward. (See Fig 3.2)

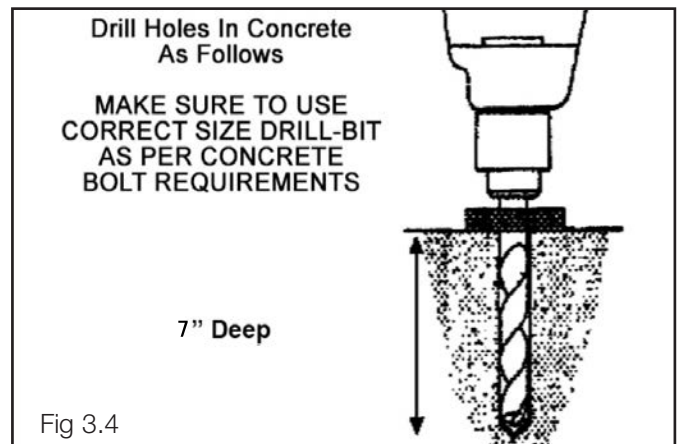
NOTE: If sheaves were factory installed, it will be helpful to remove the Cable Sheaves from each post prior to raising.



3. Using a forklift or crane, lift the Rear Closeout Post upright and place it into position on the "Rear - Closeout Side" using the chalk lines that were marked earlier in this step. DO NOT remove forklift or crane once post is upright. (See Fig 3.3)

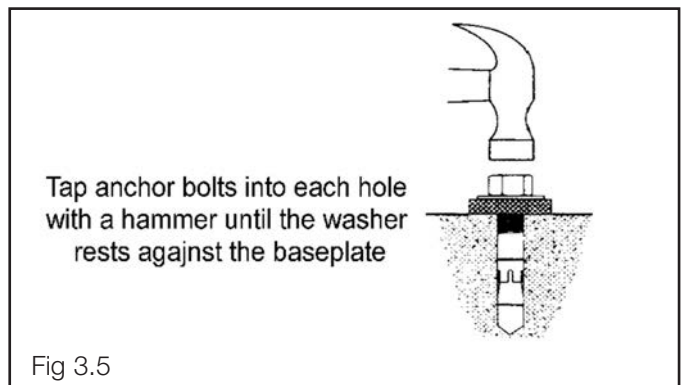


4. Using the baseplate as a guide, drill each anchor hole in the concrete approximately 7" deep using a rotary hammer drill and 3/4" concrete drill-bit. (See Fig 3.4)



5. After drilling the anchor holes, remove the dust thoroughly from each hole using compressed air and/or wire brush.

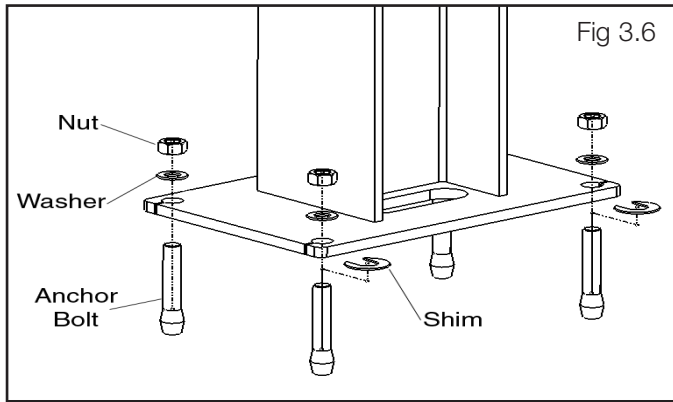
6. Assemble the washers and nuts on the anchors then tap into each hole with a hammer until the washer rests against the base. Be sure that enough threads are left exposed, if shimming is required. (See Fig. 3.5)



7. If shimming is required, insert the shims as necessary around each anchor bolt. (See Fig. 3.6)

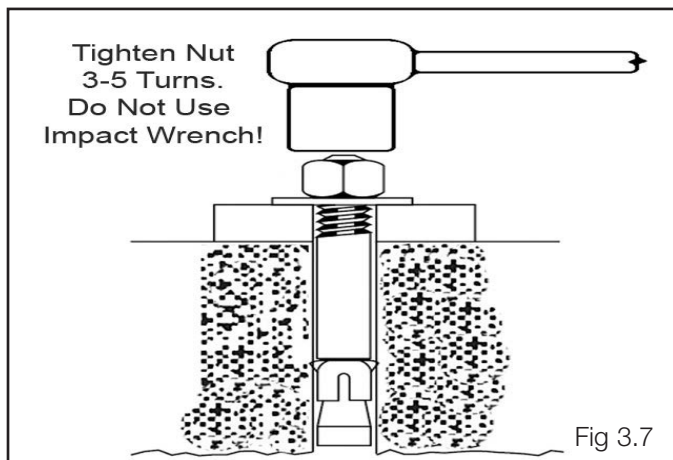
## NOTE:

THE MAXIMUM SHIM THICKNESS RECOMMENDED BY THE FACTORY IS NO MORE THAN 1/2" PER COLUMN USING SHIMS AND ANCHORS PROVIDED WITH THE LIFT. A MAXIMUM SHIM THICKNESS OF 2" IS POSSIBLE BY ORDERING OPTIONAL SHIM PLATES. CONTACT YOUR AUTHORIZED BENDPAK DISTRIBUTOR FOR ORDERING INFORMATION.



8. Using a three-foot level, make sure the Post is plumb.

9. With the shims and anchor bolts in place, and the post determined to be level, tighten nut three to five turns past finger tight. DO NOT use an impact wrench for this procedure. (See Fig. 3.7)

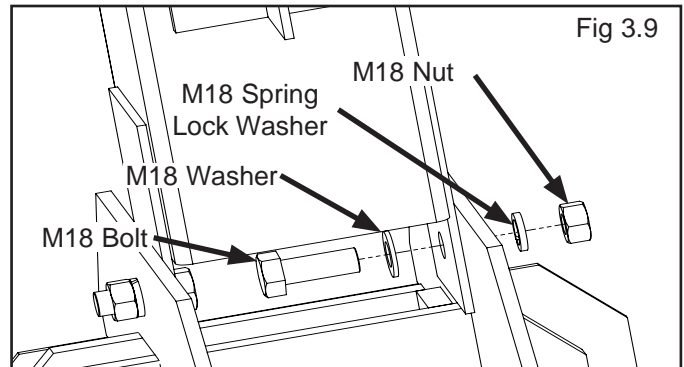
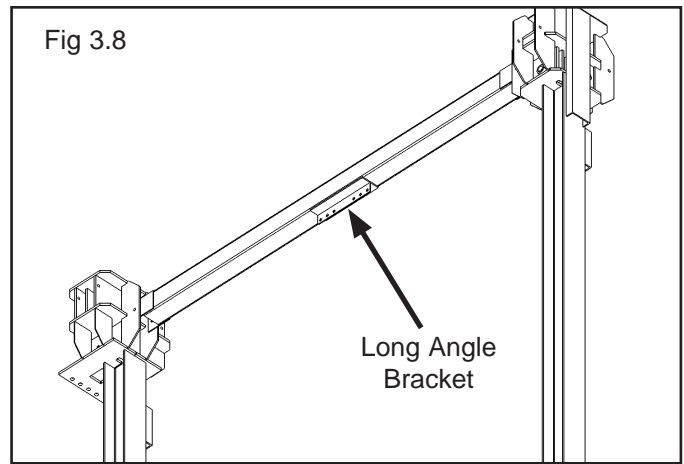


10. The forklift or crane may now be removed.

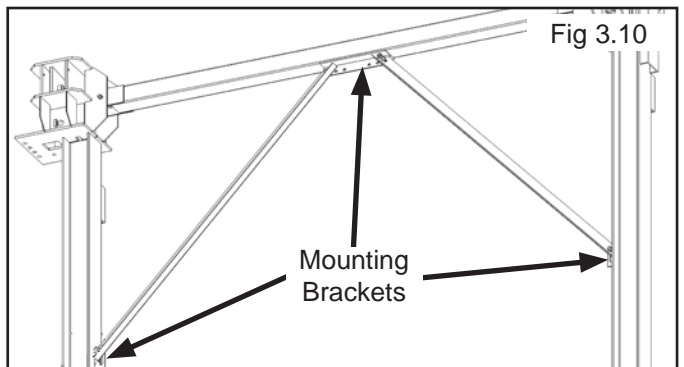
11. Repeat Steps 3 - 10 for the Front Closeout Post.

12. Locate one of the Long Crosstubes and slide the Crosstube Endplates in between the Crosstube Clevises and align the thru holes. Make sure the Long Angle Bracket faces towards the Base Plates. (See Fig. 3.8)

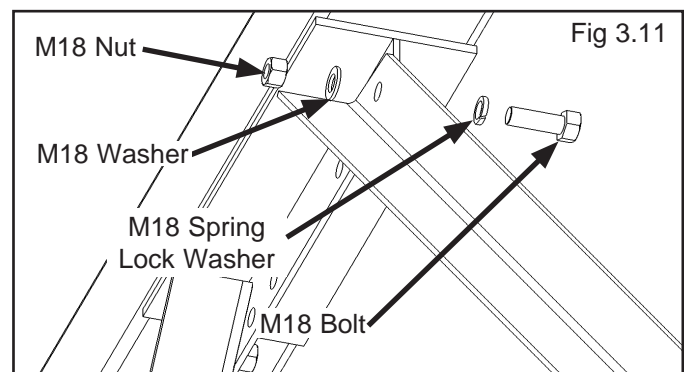
13. Install the supplied M18 bolts, washers, spring lock washers, and nuts to securely fasten the Long Crosstube to the Rear Closeout Post and Front Closeout Post. (See Fig. 3.9)



14. Place two Long Angles on to the Long Angle Brackets of the Posts and the Crosstube and align the Long Angle mounting holes with the Crosstube mounting holes and Post mounting slots. (See Fig 3.10)



15. Install the supplied M18 bolts, spring lock washers, and nuts to securely fasten the Long Angles to the Closeout Side Posts and Long Crosstube. (See Fig. 3.11)

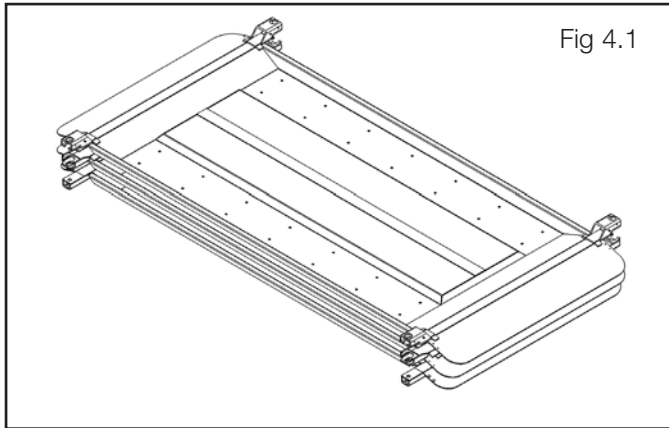




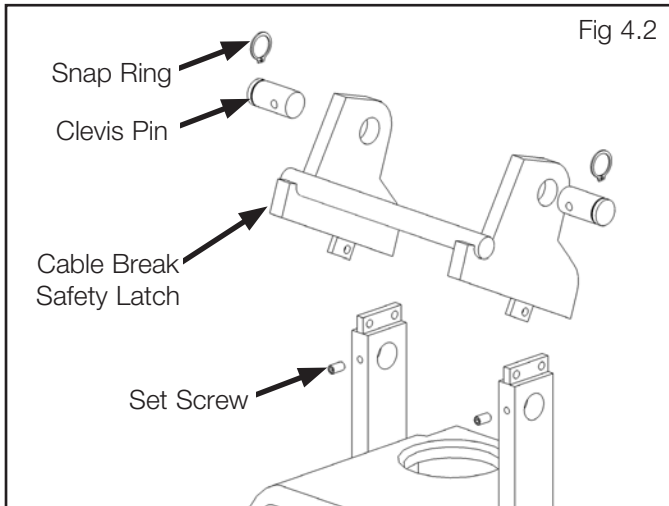
## STEP 4 (Ramp Assembly)

**NOTE:** The PL-18000 model is depicted throughout this step. Disregard any instruction regarding “Middle Ramp” for PL-14000 installation.

1. Locate the Ramp Weldments. Using a forklift, lift the Top Ramp Weldment and set the ramp down onto the Middle Ramp Weldment and the Middle Ramp Weldment onto the Bottom Ramp Weldment. It may be helpful to set the ramps down on to wood blocks to help unload the ramps from the forklift. Align the thru holes in the ramps as closely as possible. (See Fig 4.1)



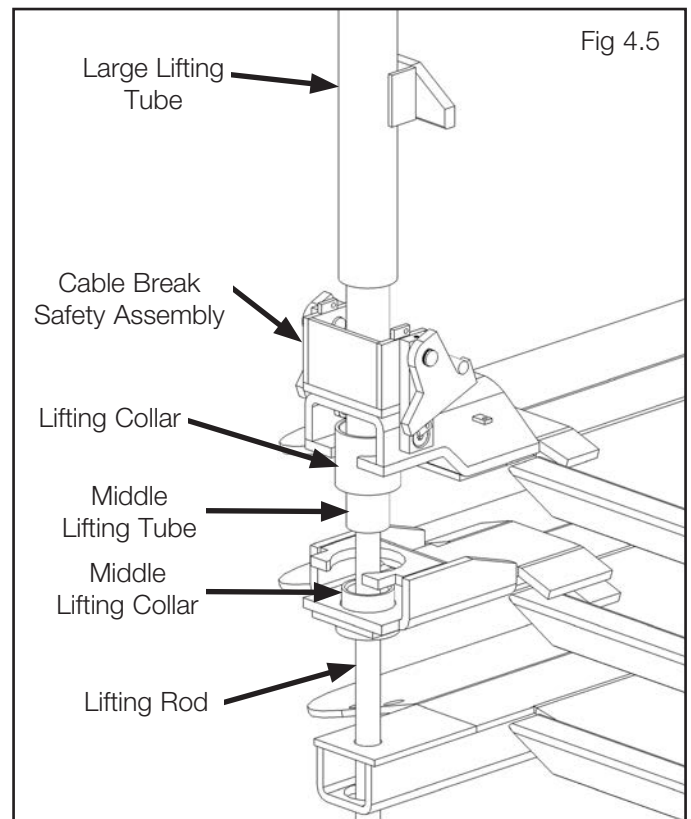
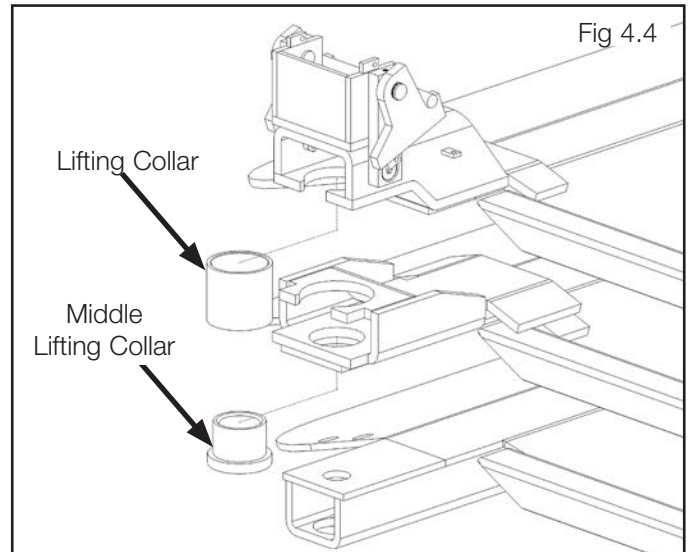
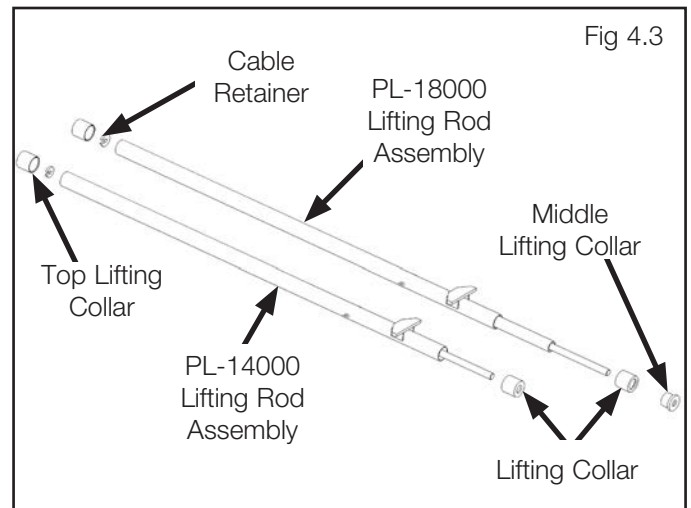
2. Locate the Cable Break Safety Latches. Align the mounting holes of the Cable Break Safety Latches with the mounting holes of the Top Ramp Weldment. Fasten the two components together using the provided clevis pins, snap rings and set screws. Repeat on all 4 corners. (See Fig 4.2)



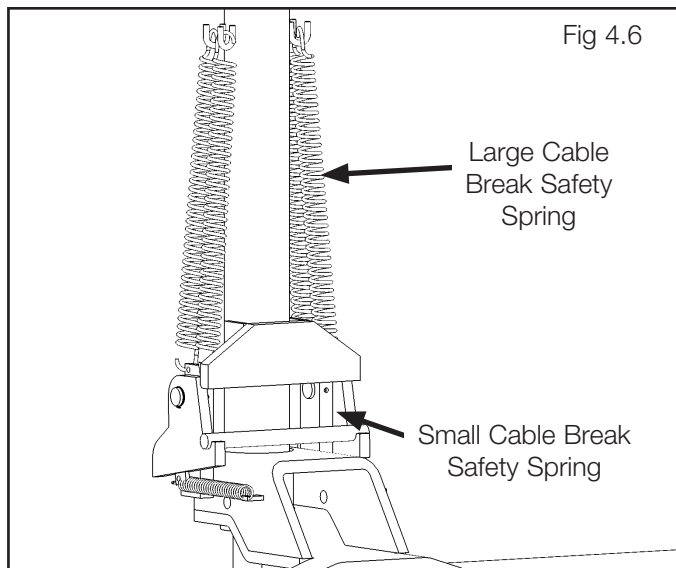
3. Locate the Lifting Rod Assemblies and disassemble the Lifting Collars and the Cable Retainers. (See Fig 4.3)

4. Insert the Lifting Collar through the bottom of the Top Ramp Weldment. Inset the Middle Lifting Collar through the bottom of the Middle Ramp Weldment. (See Fig 4.4)

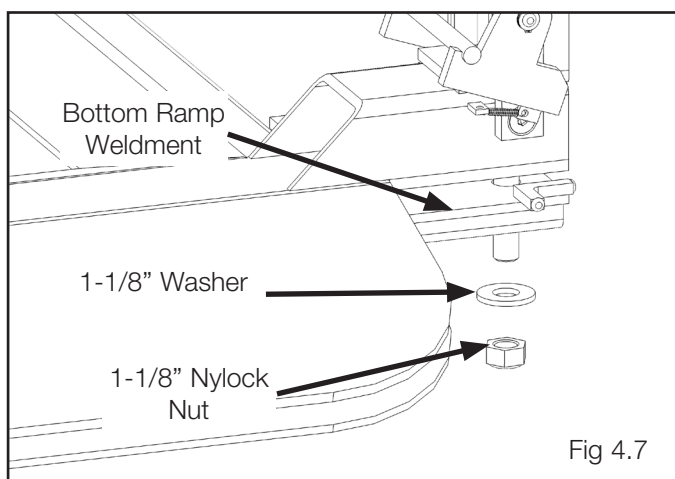
5. Take the Lifting Rod Assemblies that were disassembled in Item 3 and align the rod and tubes with the thru holes of the Cable Break Safety Assembly and the ramps. Apply locite to the tube threads before assembling the collars. Hold the Large Lifting Tube in place as the Lifting Collar is threaded on. (See Fig 4.5)



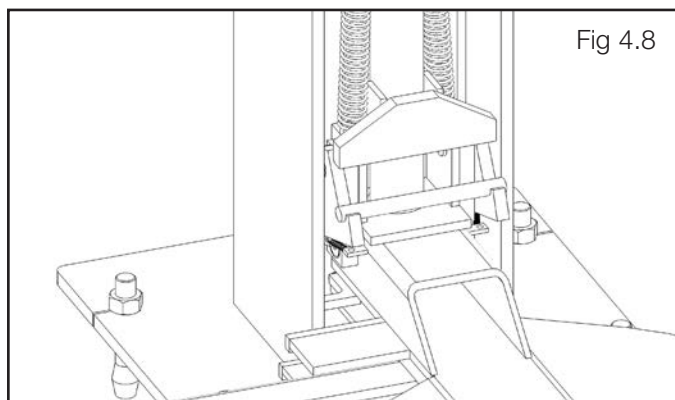
6. Attach the large and small Cable Break Safety Springs. (See Fig 4.6)



7. When the Lifting Rod is through the Bottom Ramp Weldment fasten a nylock nut and washer to the end of each Lifting Rod. (See Fig 4.7)

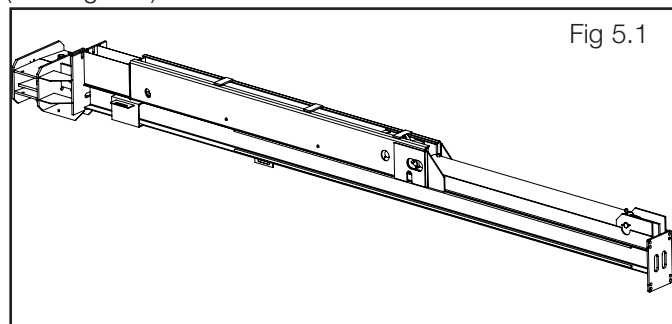


9. Using a forklift, lift the Ramp Weldments and move them so that the ends of the Ramp Weldments fit inside of the posts. It may be helpful to set the ramps on wood blocks to help unload the ramp from the forklift. (See Fig. 4.8)

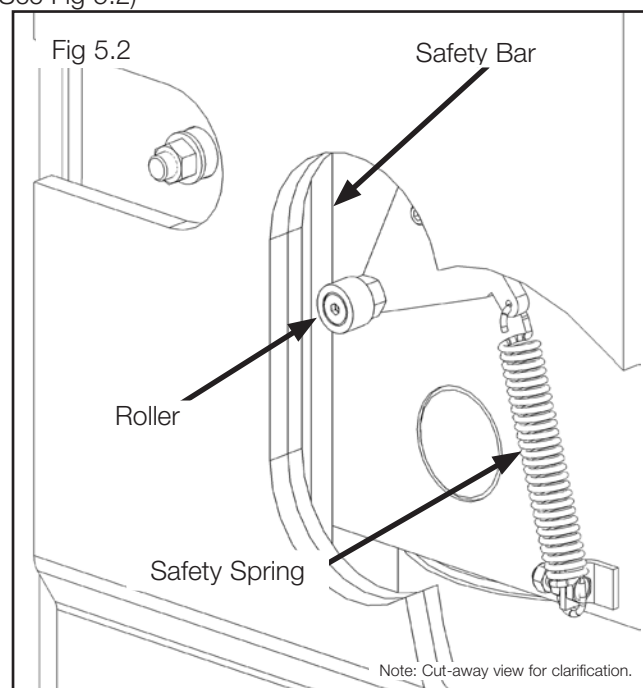


## STEP 5 (Power Side Post Installation)

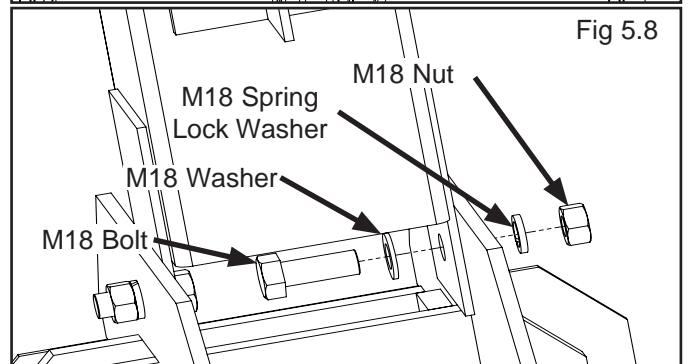
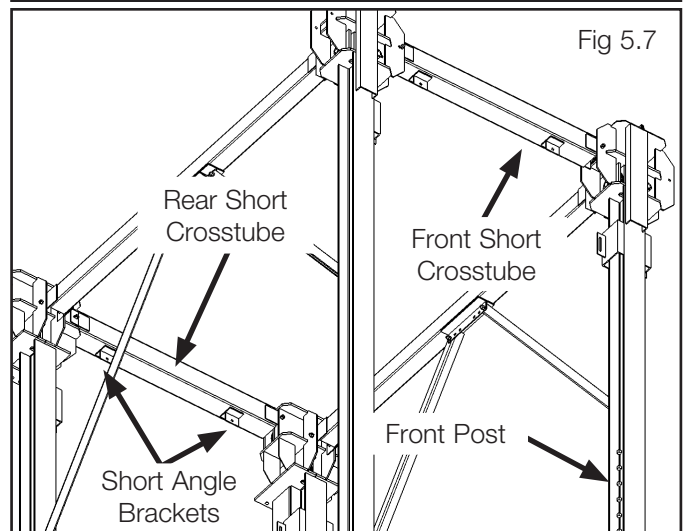
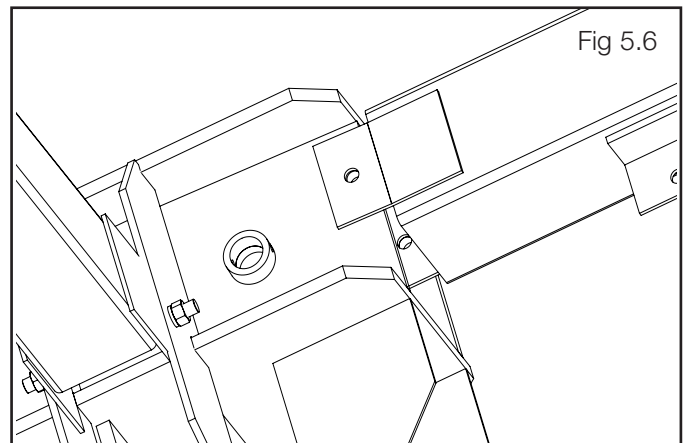
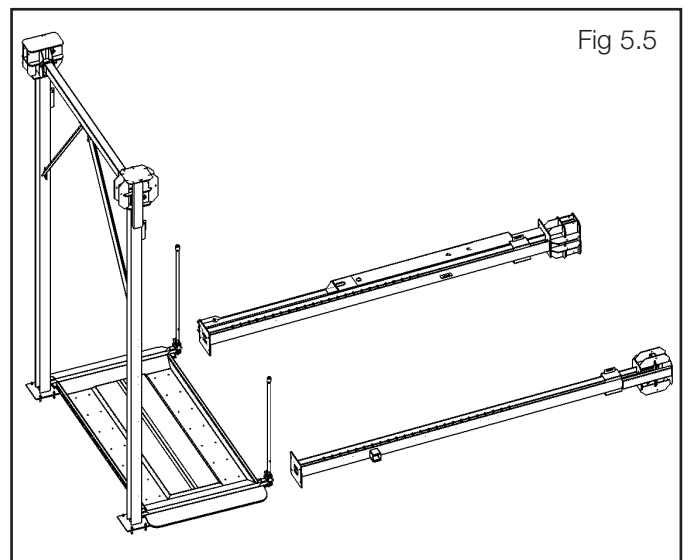
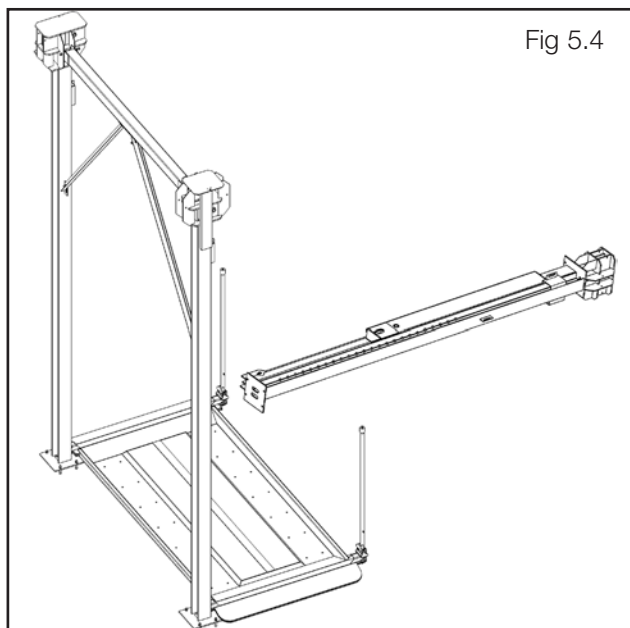
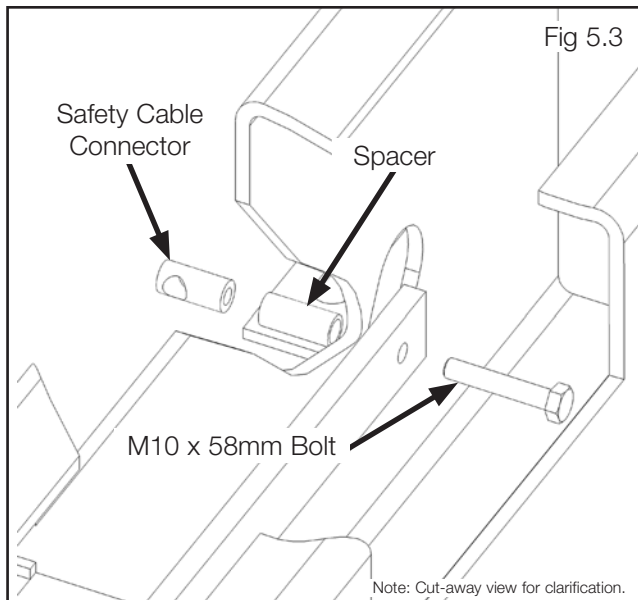
1. Locate the Power Post, easily identified by the cylinder assembled in the post or the Sheave Pullbox mounted inside of the post. Orient the Power Post so that the Sheave Pullbox Glide Channel is easily accessible. (See Fig. 5.1)



2. Inspect the ends of the Safety Spring inside the Sheave Pullbox as shown. Make sure the spring ends are secure at both ends. DO NOT ATTEMPT TO RAISE THE LIFT UNTIL THE SAFETY SPRING IS ATTACHED AND THE ROLLER IS PULLED TOWARDS THE SAFETY BAR BY THE SPRING. (See Fig 5.2)



3. Locate the Safety Cable Connector, spacer and bolt in the parts bag. Assemble them through the top hole of the safety bar as shown in Figure 5.3.
4. Position the Power Post so that the post is laying on its side with the cylinder side facing to the rear of the installation area. It may be helpful to position this post relatively close to its final position to ease installation later. (See Fig. 5.4)
5. Position the Front Post so that the post is laying on its side with the Control Box facing the Approach Side. It may be helpful to position this post relatively close to its final position to ease installation later. (See Fig. 5.5)



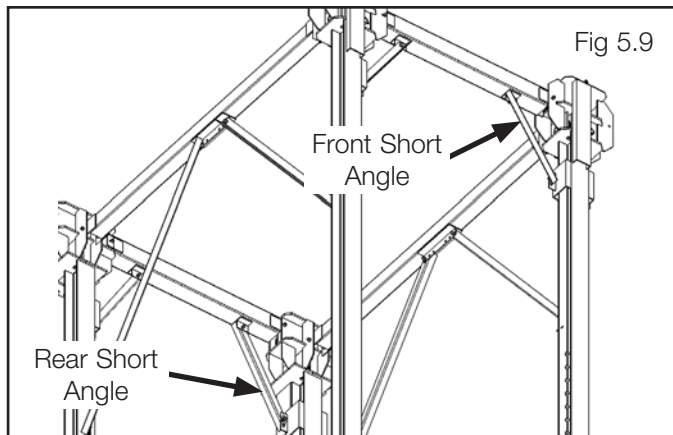
6. Follow procedures of Step 3 (Closeout Side Post Installation) for the Power Side Posts then continue to the next item. Remember to make sure ALL Cable Sheaves are removed prior to raising Posts.

7. Locate the Front and Rear Short Crosstubes and slide the Crosstube Endplates in between the Crosstube Clevises and align the thru holes. Make sure the Short Angle Bracket faces towards the Base Plates. (See Fig. 5.6-5.7)

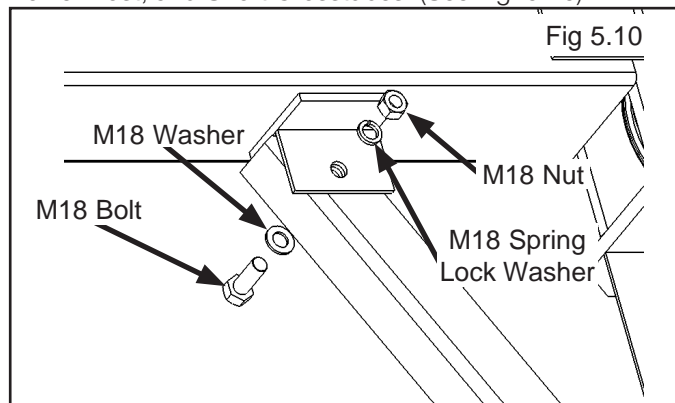
8. Install the supplied M18 bolts, washers, spring lock washers, and nuts to securely fasten the Short Crosstubes to the Power Post and Front Post. (See Fig. 5.8)

9. Place Short Angles on to the Short Angle Brackets of the Posts and the Crosstube and align the Short Angle mounting holes with the Crosstube mounting holes and Post mounting slots. (See Fig 5.9)

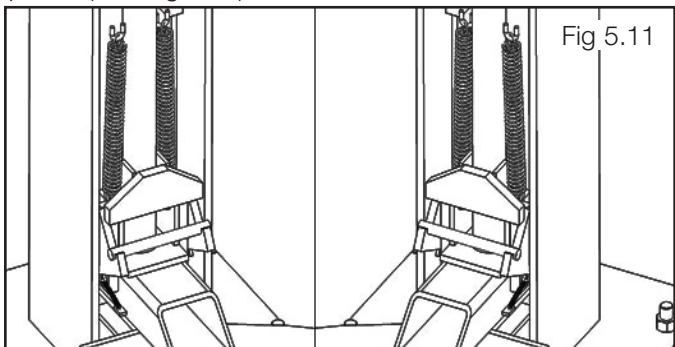
NOTE: There are two Front Short Angles and two Longer Rear Short Angles. Make sure that the Longer Short Angles are installed at the REAR of the lift.



10. Install the supplied M18 bolts, spring lock washers, and nuts to securely fasten the Short Angles to the Front Post, Power Post, and Short Crosstubes. (See Fig. 5.10)



11. Make sure both ramp tabs are aligned inside both posts. (See Fig 5.11)



14. Using a three-foot level, make sure the Power Side and Front Posts are plumb.

15. Using the base of the frame as a guide, drill each anchor hole and anchor the Power Side and Front Posts following the procedures at the end of Step 3. Shim posts if necessary.

16. The forklift or crane may now be removed.

## STEP 6

### (Cable / Sheave Installation)

1. In order to install the cables, it is necessary to first



**WARNING**

#### **WARNING!**

**DO NOT EXCEED 50 PSI. IF CYLINDER DOES NOT MOVE IMMEDIATELY STOP AND USE A COME-ALONG OR OTHER PULLING DEVICE. KEEP HANDS CLEAR.**

#### **WARNING!**

**TAKE CARE TO NOT DAMAGE THE CHROME ROD DURING THIS STEP. DAMAGING THE CHROME ROD WILL VOID WARRANTY.**

#### **WARNING!**

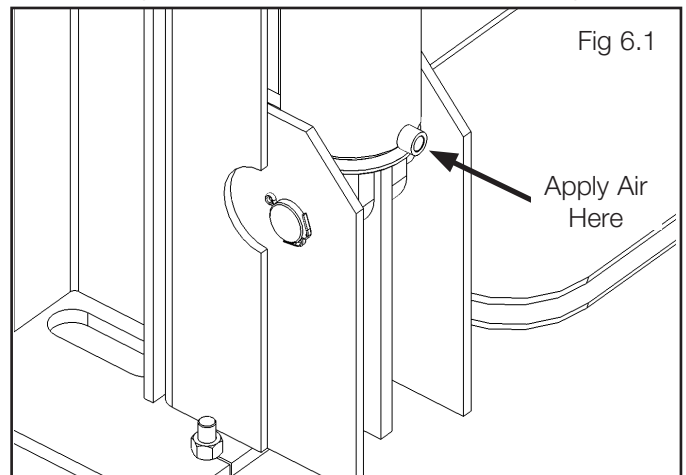
**WHEN THE CABLE ADJUSTING NUTS BOTTOM OUT ON THE THREADED END OF THE CABLE CONNECTOR AND THERE IS STILL SLACK IN THE CABLES, THE CABLES HAVE STRETCHED BEYOND THE SAFE USEFUL LENGTH AND NEED TO BE REPLACED WITH FACTORY APPROVED CABLE ASSEMBLIES. DO NOT PLACE WASHERS, SPACERS OR OTHER DEVICES TO "SHORTEN" THE EFFECTIVE CABLE LENGTH AS DAMAGE TO THE LIFT OR INJURY TO PERSONS MAY OCCUR.**



**WARNING**

extend the Hydraulic Cylinder. Remove both cylinder port plugs, then use a rubber tipped air gun or ratcheting pull-strap to extend the cylinder. (See Fig 6.1)

2. Once cylinder is extended, attach cables by anchor-

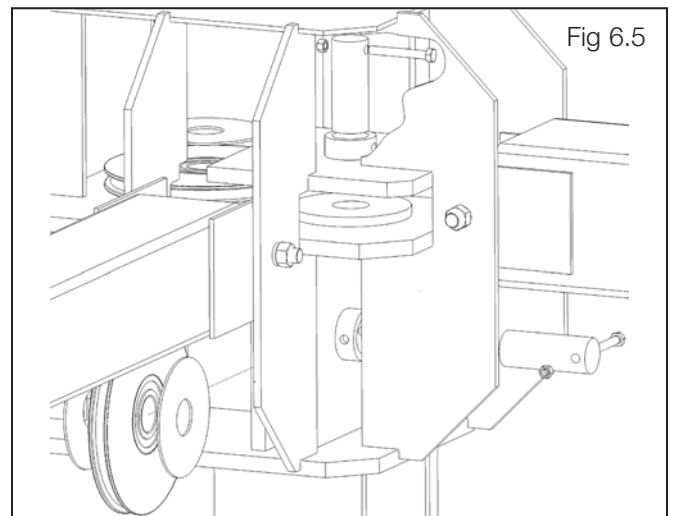
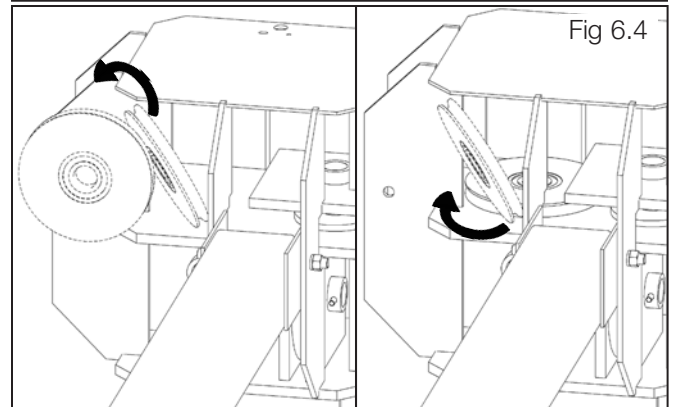
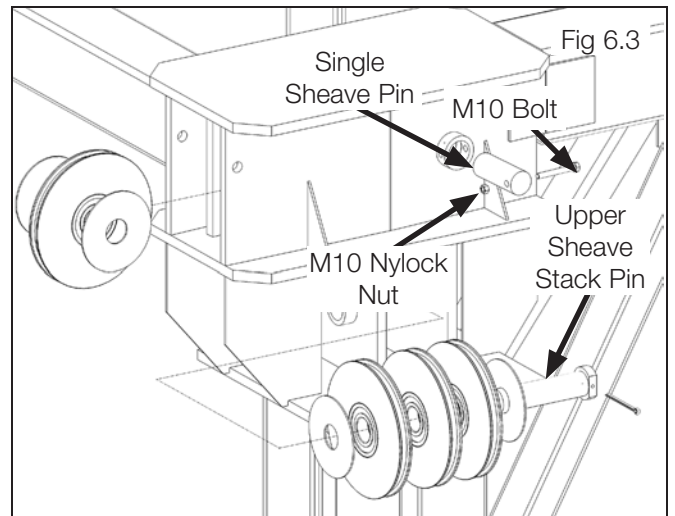
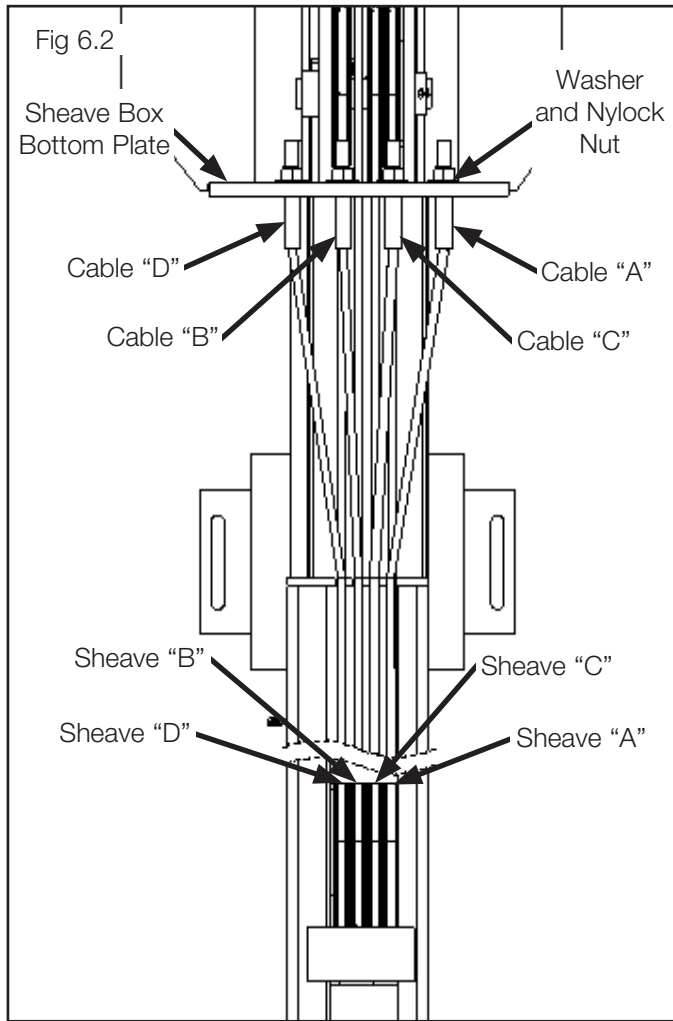


ing the threaded end connectors through the Sheave Box Bottom Plate along with the provided hardware. Use the diagram to route the cables around the correct sheaves. Route cables from outside of sheave to inside post. (See Fig 6.2)



**NOTE:**

THE CABLES ARE NAMED IN ORDER FROM THE SHORTEST (A) TO THE LONGEST (D).



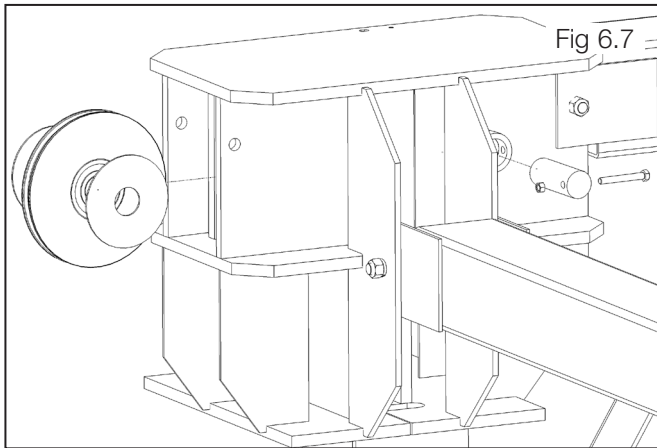
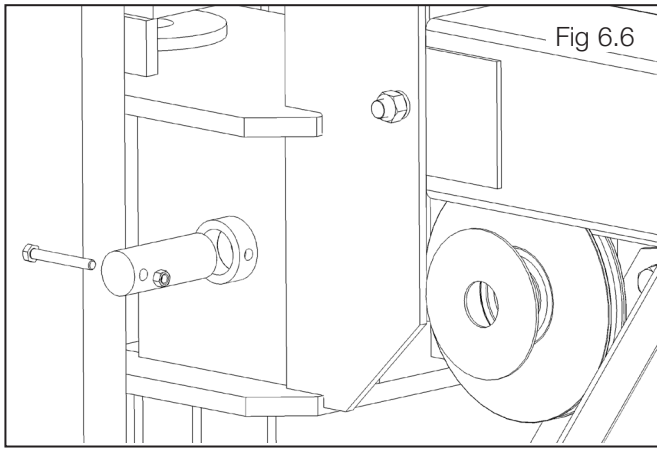
3. Route the Cables around the sheaves as they are reinstalled. Insert 3 sheaves and 2 spacers into the bottom part of the Power Post Sheave Box and secure the sheaves with the Upper Sheave Stack Pin. Then insert 1 sheave and 2 spacers into the upper part of the Sheave Box and slide it towards the interior of the lift. Secure the top sheave with the Single Sheave Pin. Install the supplied M10 bolt and nylock nut to securely fasten the pin. (See Fig 6.3)

NOTE: Failure to install FRICTION SPACERS will result in premature sheave wear and void warranty.

4. To install the horizontally oriented sheave in the Front Post Sheave Box tilt it at an angle as it is slid in and rotate it once it is inside the Sheave Box. Then insert 2 sheave spacers and install the Single Sheave Pin vertically and bolt in place. Insert the lower sheave through the back of the Sheave Box with 2 spacers and secure with Single Sheave Pin and hardware. (See Fig 6.4-6.5)

5. In the Front Closeout Post insert a sheave and 2 spacers into the lower part of the Sheave Box from the side of the Sheave Box and secure with a Single Sheave Pin and bolt in place. (See Fig 6.6)

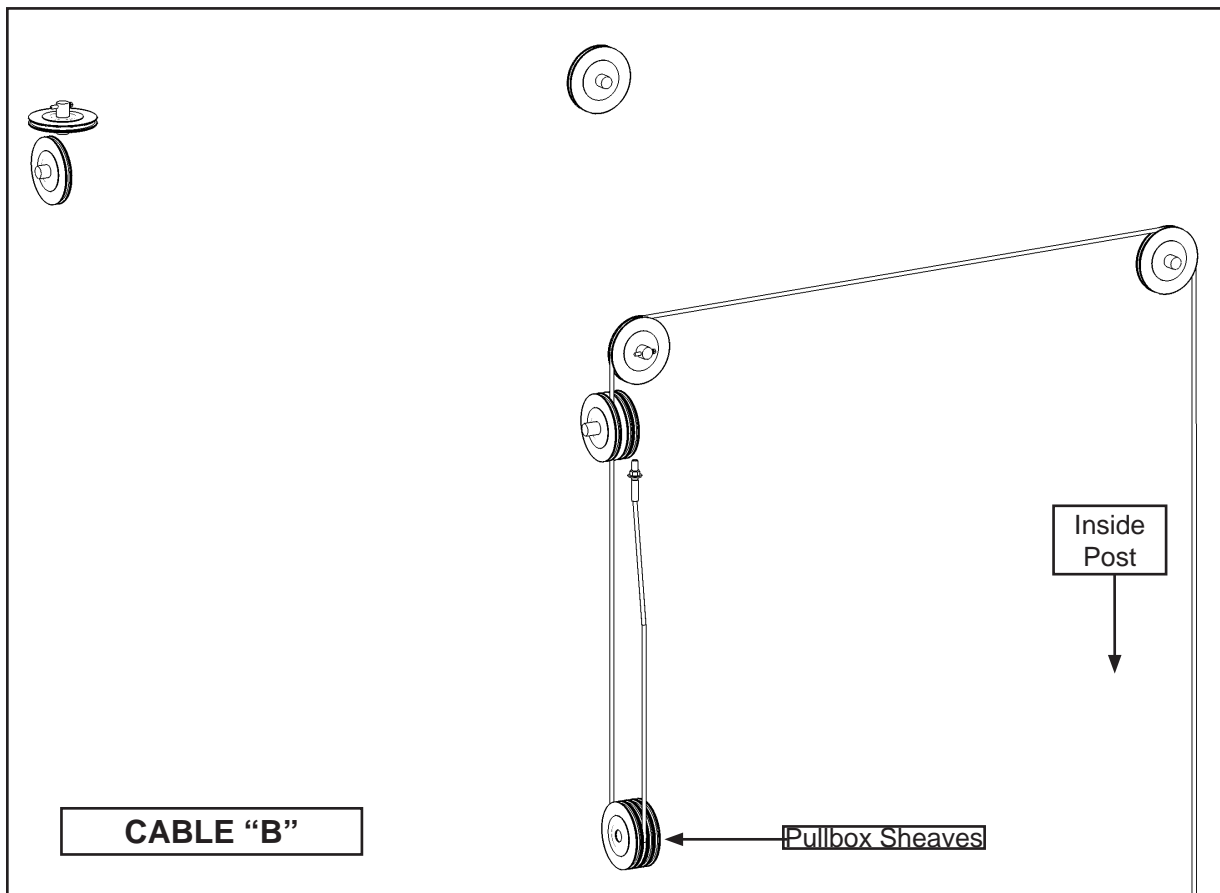
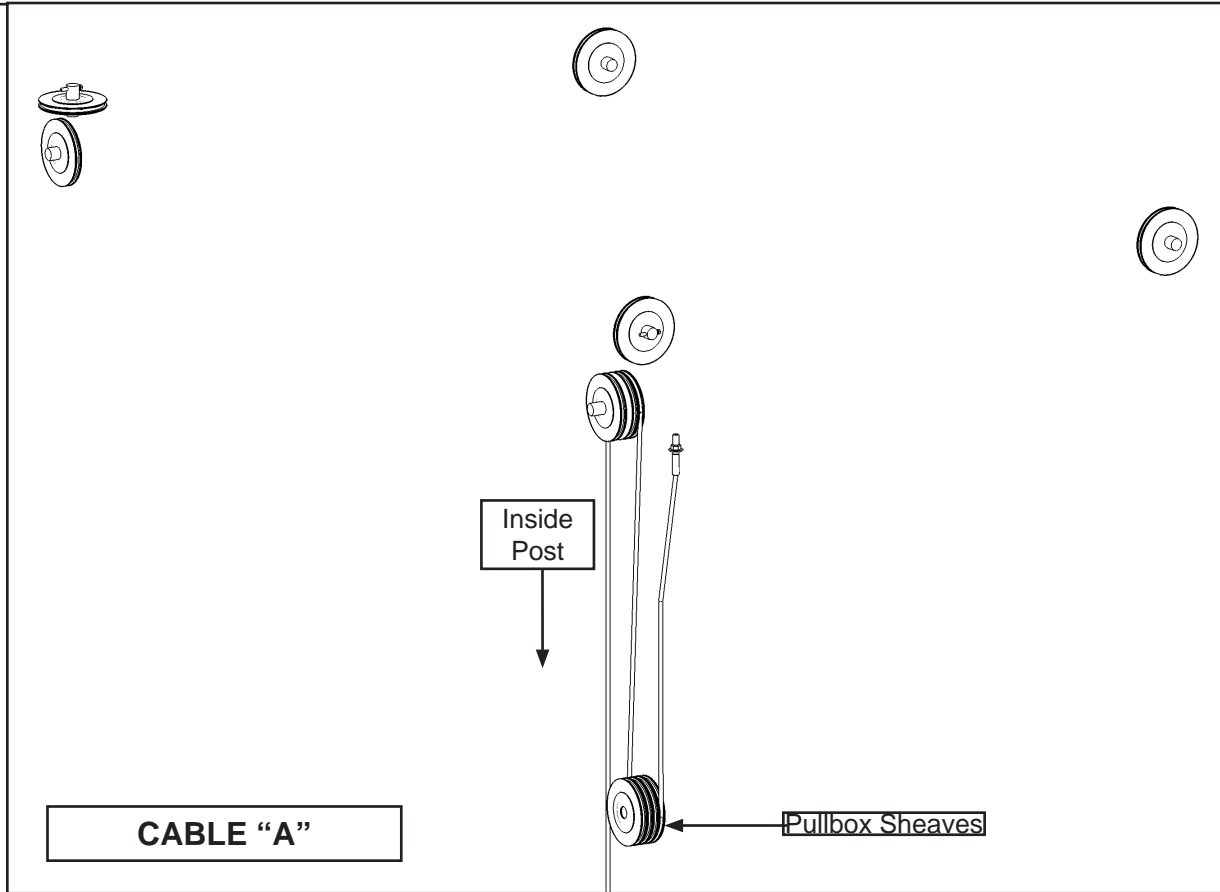
6. In the Rear Closeout Post insert a sheave and 2 spacers into the upper part of the Sheave Box from the outside of the Sheave Box and slide it towards the interior of the lift. Secure with a Single Sheave Pin and bolt in place. (See Fig 6.7)



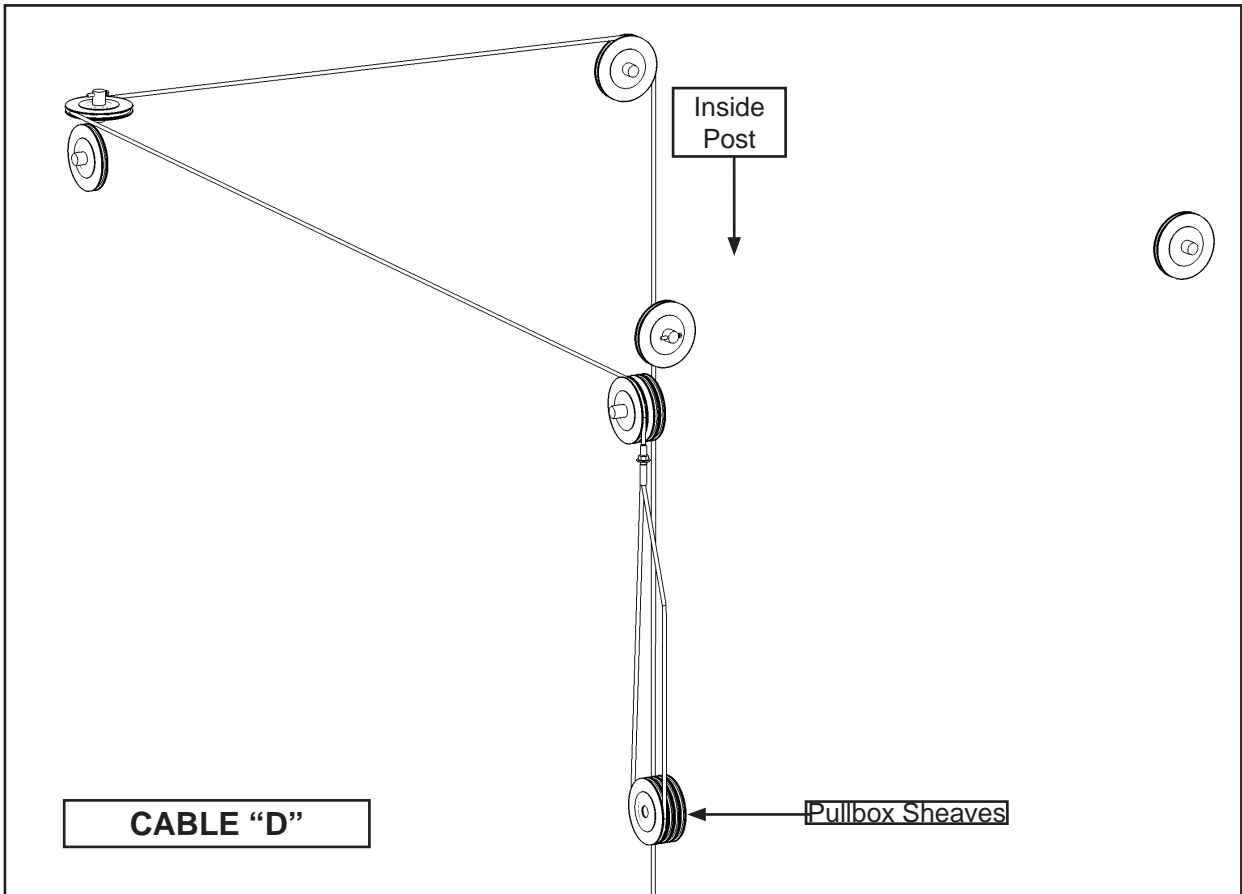
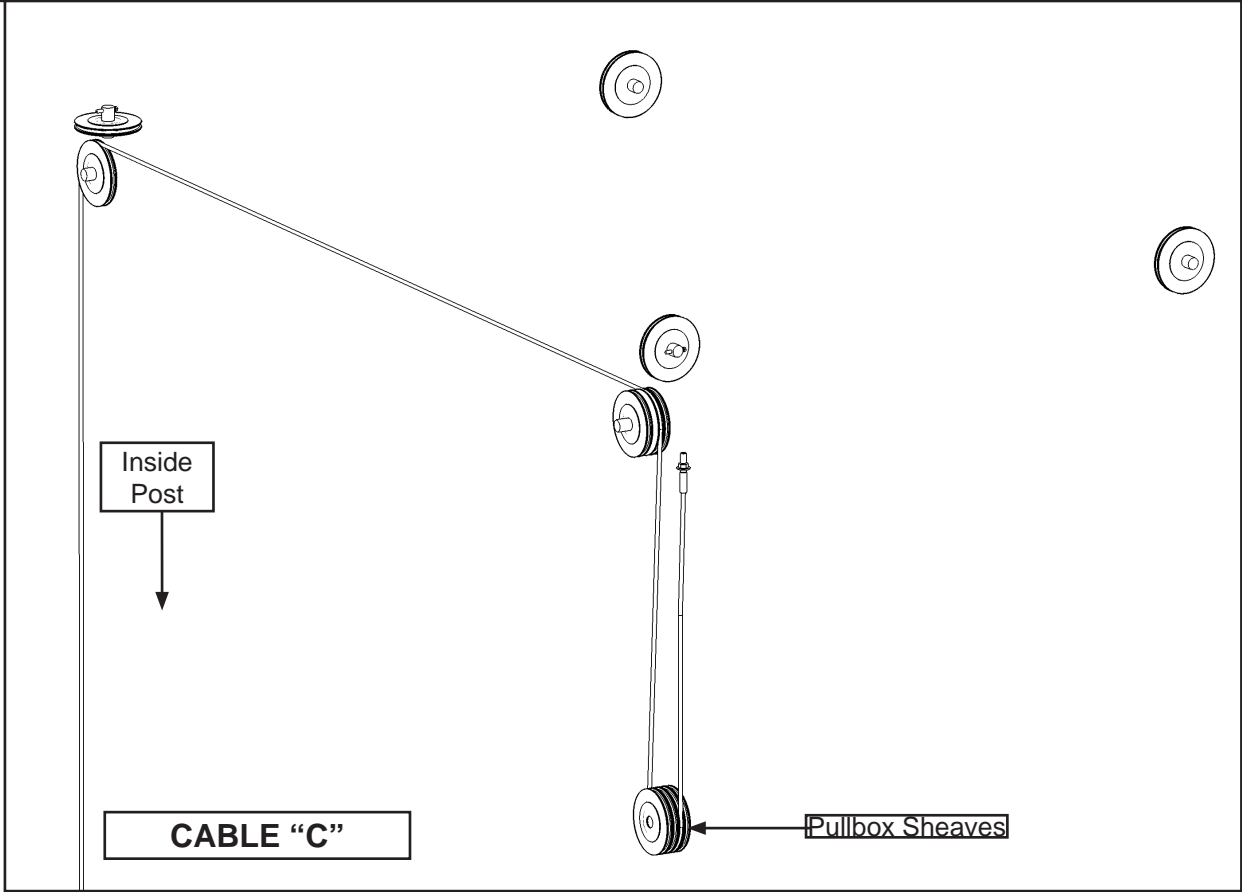
7. Once the Cables are anchored to the Power Post and the sheaves are installed in the correct positions, route the plug end of each cable through the hole in the bottom plate of each Sheave Box. Refer to the Lifting Cable Routing Diagram on the following pages.



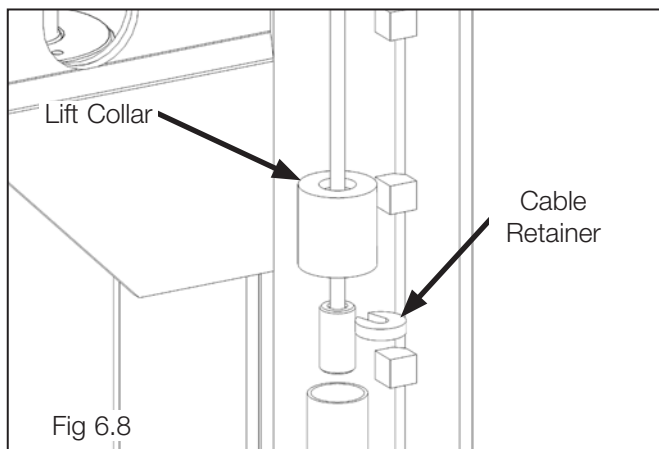
## PL-14000/18000 LIFTING CABLE ROUTING DIAGRAM



**PL-14000 LIFTING CABLE ROUTING DIAGRAM CONTINUED**

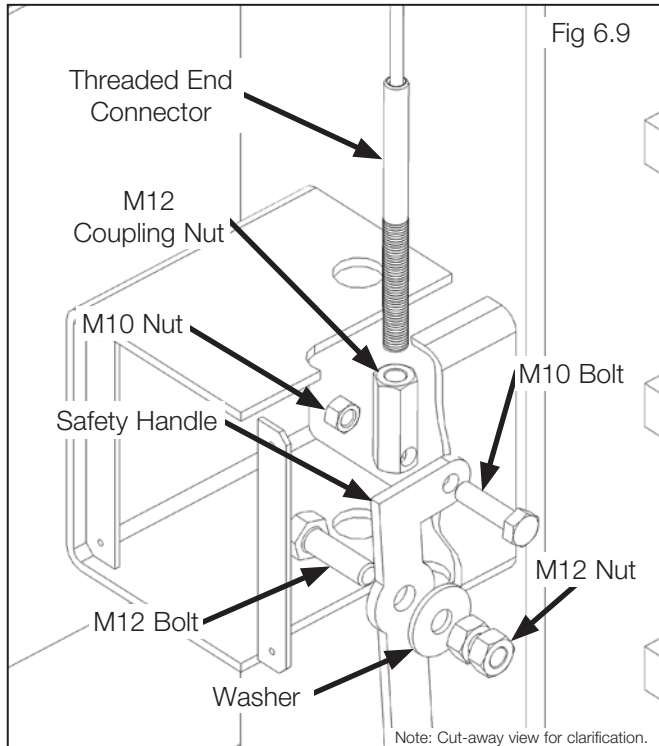


8. Locate the remaining Lift Collars and Cable Retainers from the Lifting Rod Assemblies that were disassembled in Step 4: Ramp Assembly. Put the plug end of a lifting cable through the small hole in a Lift Collar and place a Cable Retainer around the cable at the plug. Then thread the Lift Collar onto the top of the Lifting Rod Assembly. (See Fig 6.8)

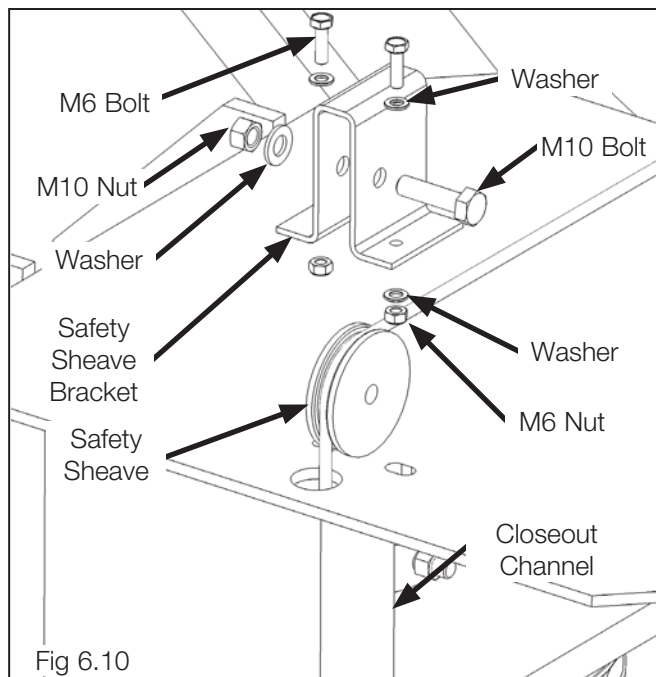


9. Repeat Item 8 for each cable.

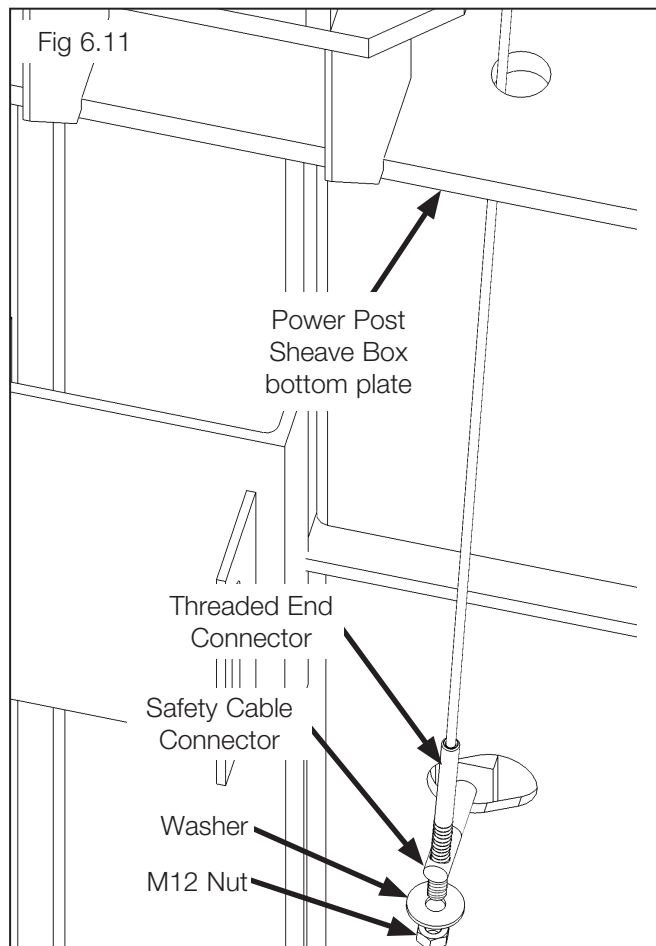
10. Locate the remaining cable with two Threaded End Connectors. Assemble the Safety Handle in the Front Post Control Box as shown. Do not over tighten the fasteners. The Coupling Nut and Safety Handle must be able to rotate freely to ensure proper operation. (See Fig 6.9)



11. Attach a Safety Sheave Bracket and Safety Sheave to the top of the Front Post with the M6 and M10 hardware. Route the Safety Cable up the Front Post, through the Closeout Channel and around the Front Post Safety Sheave. (See Fig 6.10)



12. Attach a Safety Sheave Bracket and Safety Sheave to the top of the Power Post. Route the Safety Cable across the top of the Power Side Long Crosstube, down through the large hole in the bottom plate of the Power Post Sheave Box, and through the Safety Cable Connector. Pull the Threaded End Connector through the cable connector so that any slack is taken out of the Safety Cable and secure it with an M12 nut and washer. (See Fig 6.11)





### **DANGER!**

DO NOT PERFORM ANY MAINTENANCE OR INSTALLATION OF ANY COMPONENTS WITHOUT FIRST ENSURING THAT ELECTRICAL POWER HAS BEEN DISCONNECTED AT THE SOURCE OR PANEL AND CANNOT BE RE-ENERGIZED UNTIL ALL MAINTENANCE AND/OR INSTALLATION PROCEDURES ARE COMPLETED.



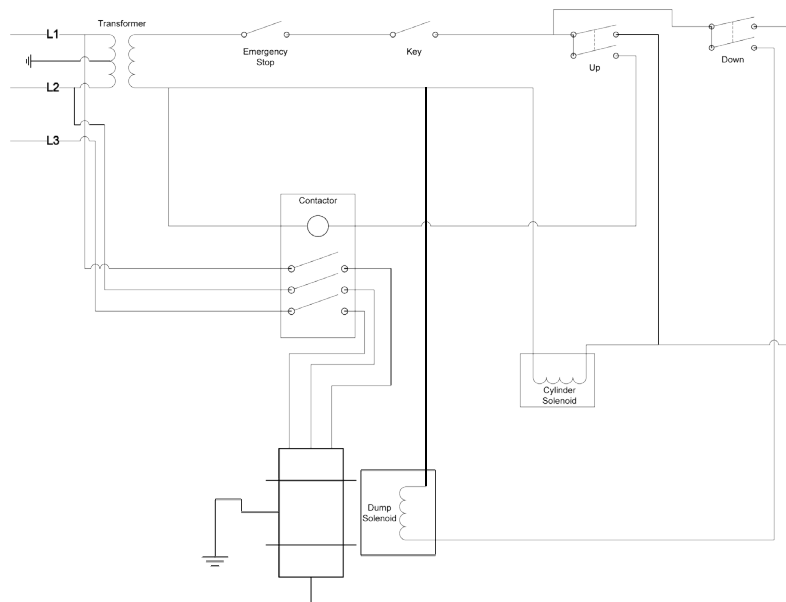
## **IMPORTANT POWER-UNIT INSTALLATION NOTES**

- DO NOT run power unit without oil. Damage to pump can occur.
- The power unit must be kept dry. Damage to power unit caused by water or other liquids such as detergents, acid etc., is not covered under warranty.
- Improper electrical connection can damage motor and will not be covered under warranty.
- Motor can not run on 50HZ without a physical change in the motor.
- Use a separate breaker for each power unit.
- Protect each circuit with time delay fuse or circuit breaker.
- For 208-230 volt, single phase, use a 25 amp fuse.
- For 208-230 volt, three phase, use a 20 amp fuse.
- For 380-440 volt, three phase, use a 15 amp fuse.

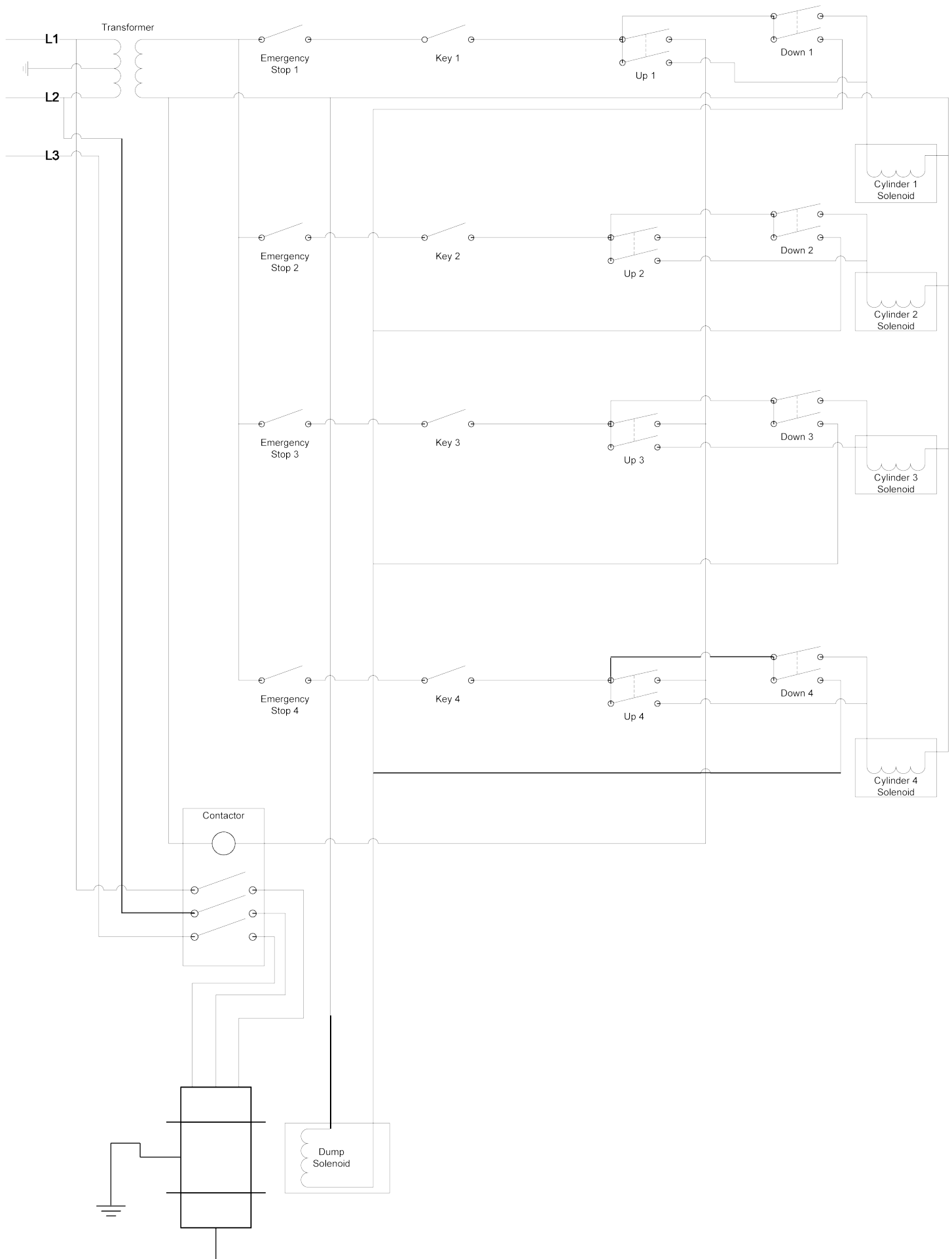
Installation and adjustment.

DO NOT attempt to raise vehicle until a thorough operation check has been completed.

All wiring must be performed by a certified electrician only.



SEE WIRING INSTRUCTIONS AFFIXED TO  
MOTOR FOR PROPER WIRING INSTRUCTIONS.



## STEP 7 (Power Unit Electrical Connection)



### **DANGER !**

ALL WIRING MUST BE PERFORMED  
BY A LICENSED ELECTRICIAN.



### **DANGER!**

DO NOT PERFORM ANY MAINTENANCE OR  
INSTALLATION OF ANY COMPONENTS WITHOU  
T FIRST ENSURING THAT ELECTRICAL POWER HAS  
BEEN DISCONNECTED AT THE SOURCE OR PANEL  
AND CANNOT BE RE-ENERGIZED UNTIL ALL  
MAINTENANCE AND/OR INSTALLATION  
PROCEDURES ARE COMPLETED.

1. Have a certified electrician run the power supply to motor and wire solenoids (where appropriate) and the Control Panel. Refer to the data plate found on the motor for proper power supply and wire size. SEE WIRING INSTRUCTIONS AFFIXED TO MOTOR FOR PROPER WIRING INSTRUCTIONS.



### **WARNING!**

DO NOT RUN POWER UNIT WITHOUT OIL. DAMAGE TO  
POWER UNIT PUMP CAN OCCUR. THE POWER UNIT MUST  
BE KEPT DRY. DAMAGE TO POWER UNIT CAUSED BY  
WATER OR OTHER LIQUIDS SUCH AS DETERGENTS, ACID  
ETC., IS NOT COVERED UNDER WARRANTY.

OPERATE LIFT ONLY BETWEEN TEMPERATURES OF  
41 °- 104° F. IMPROPER ELECTRICAL HOOK-UP CAN  
DAMAGE MOTOR AND WILL NOT BE COVERED UNDER  
WARRANTY. MOTOR CAN NOT RUN ON 50HZ WITHOUT A  
PHYSICAL CHANGE IN THE MOTOR.

USE A SEPARATE CIRCUIT BREAKER FOR EACH POWER  
UNIT. PROTECT EACH CIRCUIT WITH TIME DELAY FUSE  
OR CIRCUIT BREAKER.

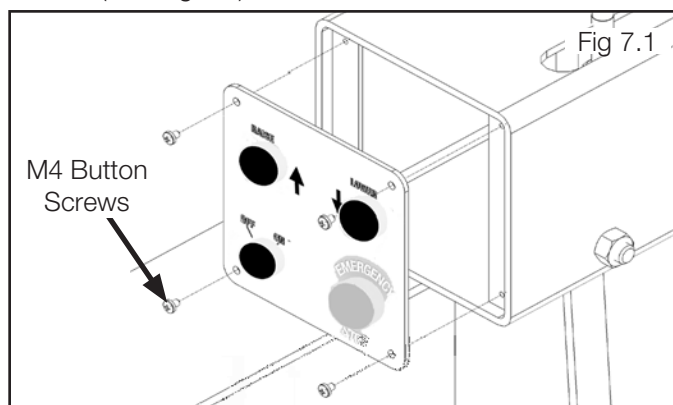
FOR 208-230 VOLT, SINGLE PHASE, USE A 25 AMP FUSE.  
FOR 208-230 VOLT, THREE PHASE, USE A 20 AMP FUSE.  
FOR 380-440 VOLT, THREE PHASE, USE A 15 AMP FUSE.



### **DANGER!**

RISK OF EXPLOSION! THIS EQUIPMENT HAS INTERNAL  
ARCING OR PARTS THAT MAY SPARK AND SHOULD  
NOT BE EXPOSED TO FLAMMABLE VAPORS. MOTOR  
SHOULD NOT BE LOCATED IN A RECESSED AREA OR  
BELOW FLOOR LEVEL. NEVER EXPOSE MOTOR TO  
RAIN OR OTHER DAMP ENVIRONMENTS. DAMAGE TO  
MOTOR CAUSED BY WATER IS NOT COVERED UNDER  
WARRANTY.

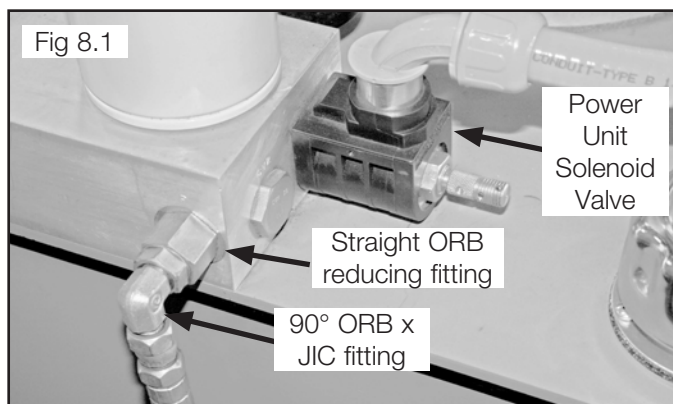
2. After Control Panel electrical connection the panel may be secured to the Front Post with the supplied button head screws. (See Fig 7.1)



## STEP 8 (Hydraulic Fittings)

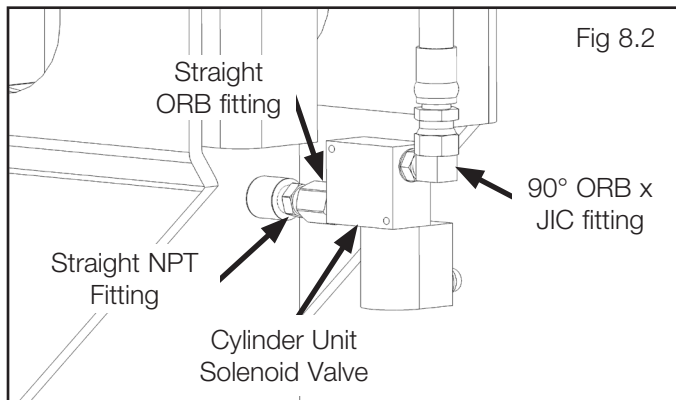
For a Multiple Unit installation -

1. Locate the hydraulic fittings and solenoid valves.
2. Connect the Hydraulic Hose, 90° ORB x JIC fitting, straight ORB reducing fitting and the power unit solenoid valve to the ports in the Power Unit. **DO NOT USE TEFLON TAPE** on the JIC flared end. (See Fig 8.1)



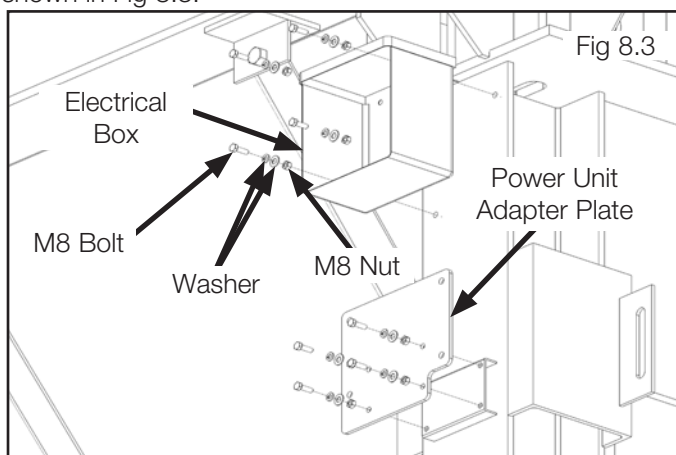


3. Connect the straight NPT fitting, straight ORB x NPT fitting, cylinder solenoid valve and 90° ORB x JIC fitting to the upper cylinder port. On the pipe thread (NPT) side of the Fitting it is recommended to use Teflon tape or pipe sealer. **DO NOT USE TEFLON TAPE on the JIC flared end.** (See Fig 8.2)

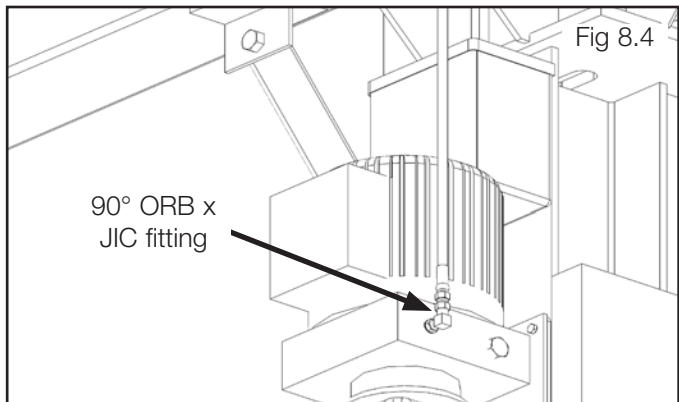


For a Single Unit installation -

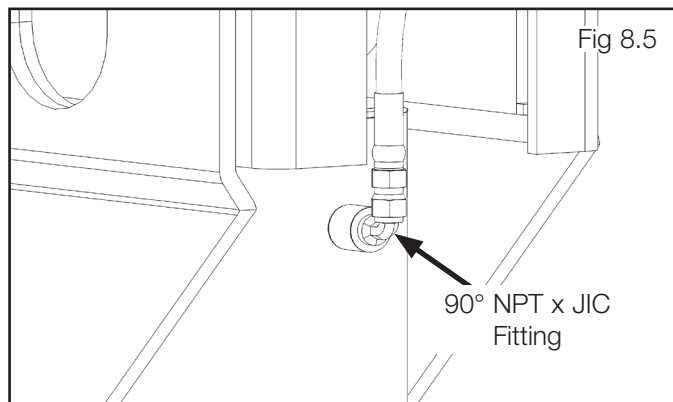
1. Attach the electrical box and power unit adapter plate to the Power Post using the provided M8 hardware as shown in Fig 8.3.



2. Connect the Hydraulic Hose and 90° ORB x JIC fitting to the port in the Power Unit. **DO NOT USE TEFLON TAPE on the JIC flared end.** (See Fig 8.4)



3. Connect the 90° NPT x JIC fitting to the upper cylinder port. On the pipe thread (NPT) side of the Fitting it is recommended to use Teflon tape or pipe sealer. **DO NOT USE TEFLON TAPE on the JIC flared end.** (See Fig 8.5)



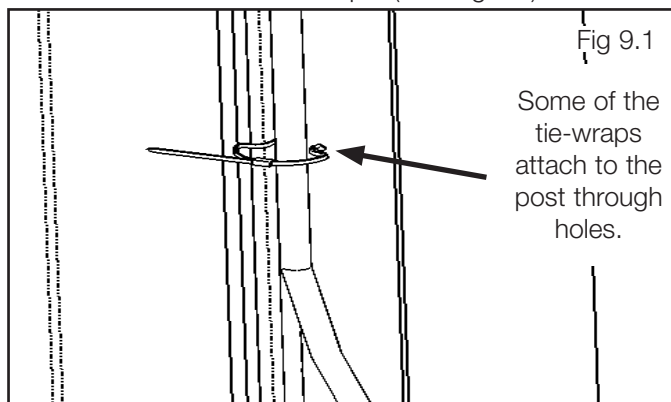
## STEP 9 (Hydraulic Hose Routing)

For a Multiple Unit installation -

1. See Fig 9.3.

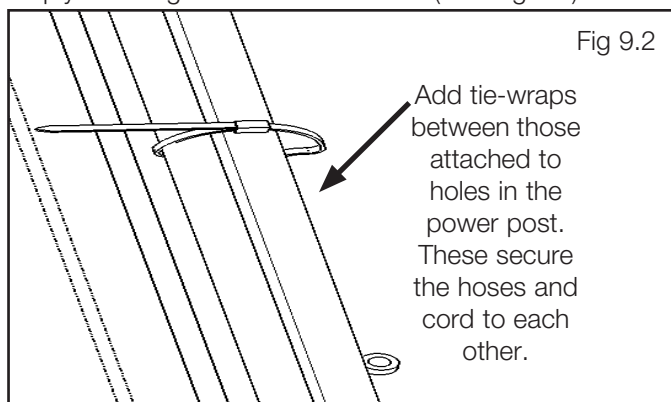
For a Single Unit installation -

1. Route the hydraulic hose from the bottom of the cylinder with the electrical cord. These are routed up the Power Post and secured with tie-wraps. (See Fig 9.1)



2. Join the top hydraulic hose with the routing of the bottom hose and electrical cord near the top of the cylinder.

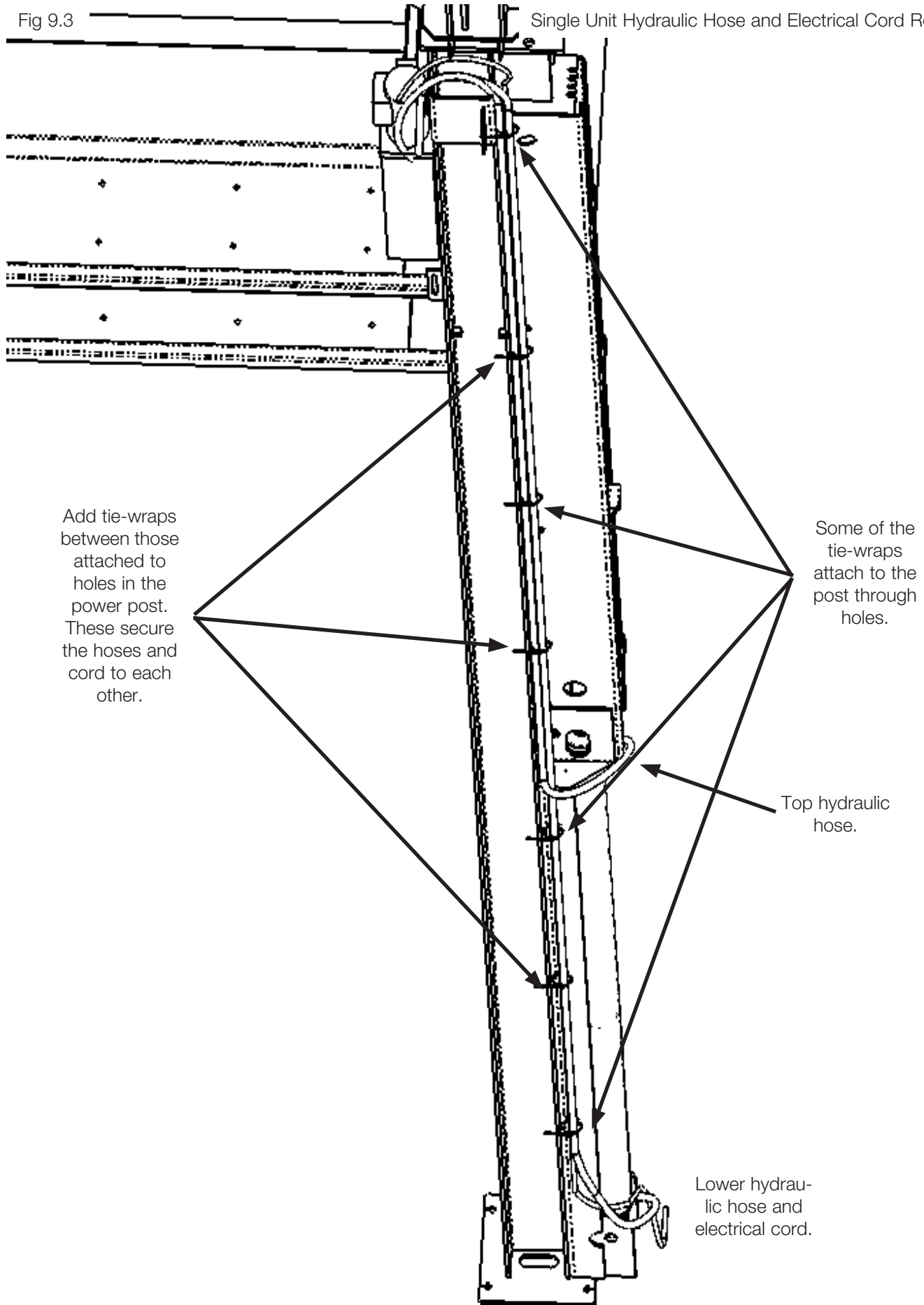
3. The tie-wraps securing the hoses and electrical cord alternate between being attached to holes in the post and simply securing them to each other. (See Fig 9.2)

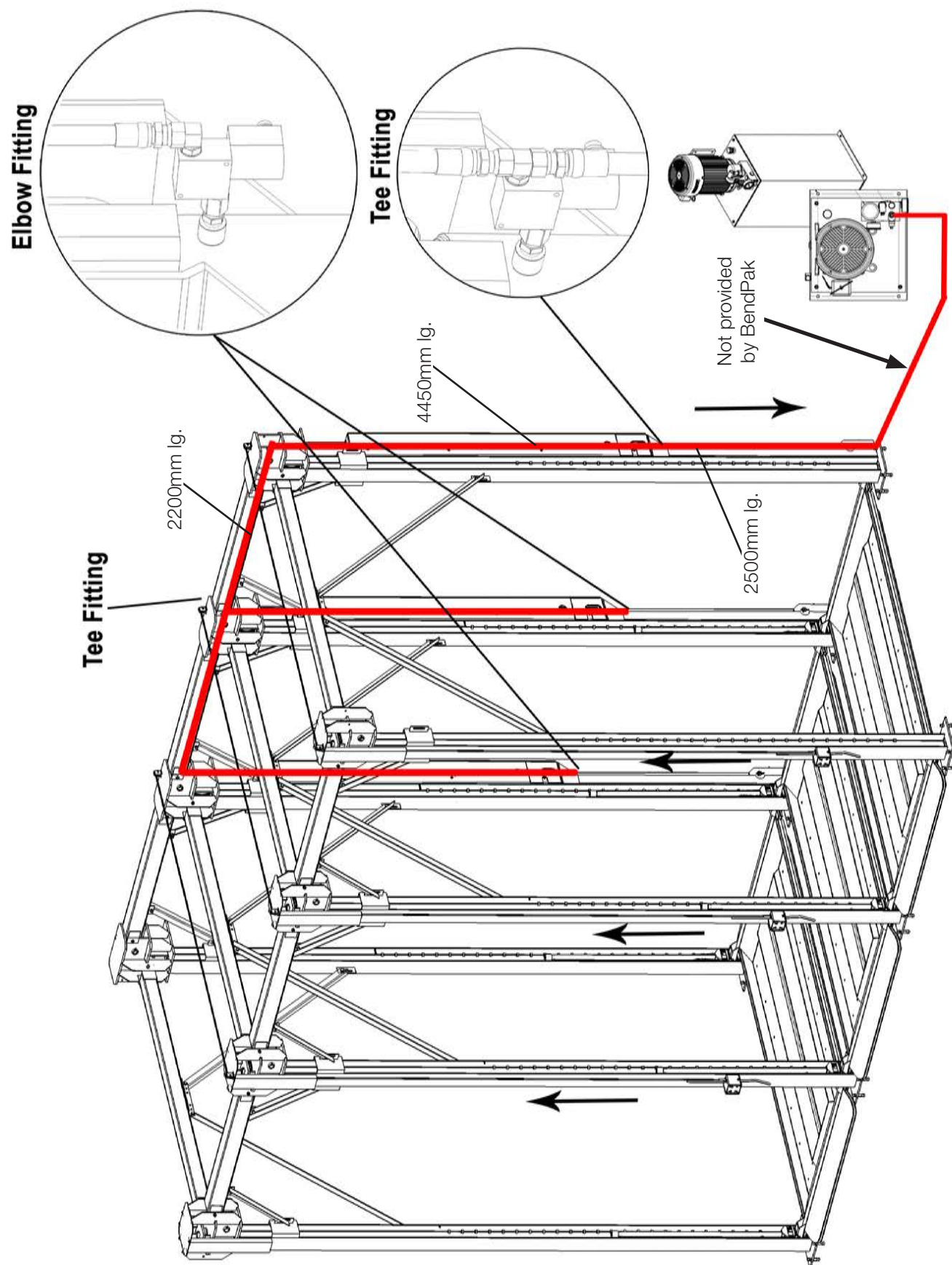


4. At the power unit, the fittings must be angled to allow the hoses to route correctly toward the power post.

Fig 9.3

Single Unit Hydraulic Hose and Electrical Cord Routing





## STEP 10 (Lift Start Up / Final Adjustments)

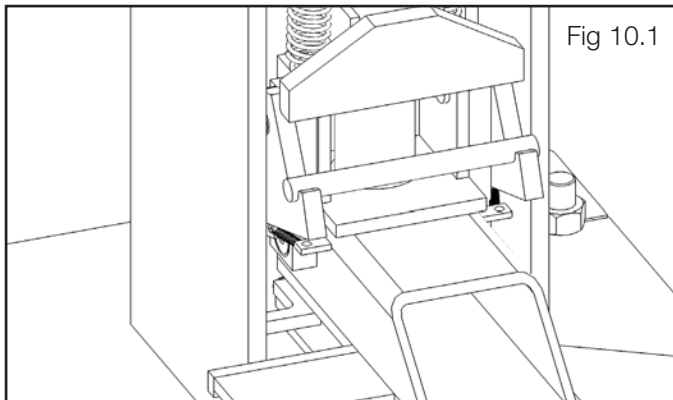
1. On PL-14000 models make sure the Power Unit reservoir is full with 6.5 gallons of 10-WT hydraulic oil or Dexron automatic transmission fluid. For PL-18000 models use 11.5 gallons.
2. Spray the inside of the Sheave Pullbox Glide Channel where the Sheave Pullbox glides with a light spray-oil.
3. Before proceeding, make sure all cables are properly positioned within the grooves of ALL sheaves. Make sure all Cable Sheave Pin Fasteners are secure.



### DANGER!

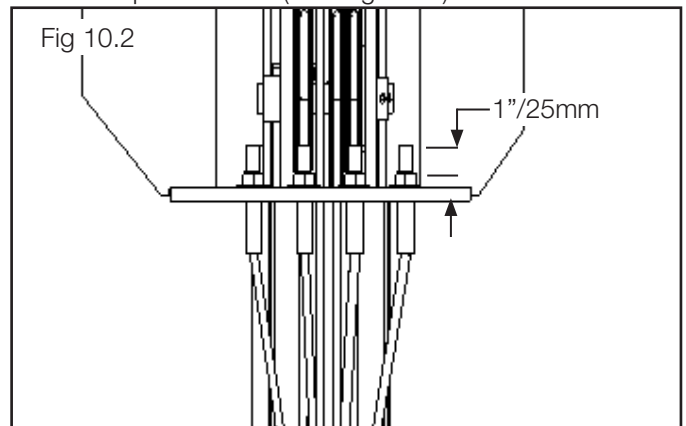
VISUALLY CONFIRM THAT THE PRIMARY SAFETY ON THE BACK OF THE POWER POST IS ENGAGED BEFORE ENTERING WORK AREA. SUSPENSION COMPONENTS ON THIS LIFT ARE INTENDED TO RAISE AND LOWER LIFT ONLY AND ARE NOT MEANT TO BE LOAD HOLDING DEVICES. REMAIN CLEAR OF ELEVATED LIFT UNLESS VISUAL CONFIRMATION IS MADE THAT THE PRIMARY SAFETY IS FULLY ENGAGED. REFER TO INSTALLATION / OPERATION MANUAL FOR PROPER SAFETY LOCK PROCEDURES AND / OR FURTHER INSTRUCTION.

4. Test the Power Unit by turning the key switch to "ON" pressing the "RAISE" push button on the Control Panel. If the motor sounds like it is operating properly, raise the lift and check all hose connections for leaks. If the motor gets hot or sounds peculiar, stop and check all electrical connections.
5. Check to make sure that all Cable Break Safety locks are cleared and free. (See Fig. 10.1)



6. Continue pressing the "RAISE" button until the cables are taut and the lift starts to move.

7. Raise lift until the cylinder is fully retracted and the lift stops. Adjust each cable so that each corner of the Top Ramp Weldment rests at the same height above the ground. It may be necessary to tighten or loosen each cable nut to reach the proper height. The cable nuts must be tightened until there is at least 1" of threading protruding from the top of the nut. (See Fig. 10.2)



## **STEP 11 (Bleeding the Cylinder)**

1. Lift must be fully lowered before changing or adding fluid.
2. Raise and lower lift six times. The cylinder is self-bleeding. After bleeding system, fluid level in Power Unit reservoir may be low. Add more fluid if necessary to raise lift to full height. It is only necessary to add fluid to raise lift to full height.
3. To pressure test, raise lift to full rise and run motor for approximately 3-seconds after lift stops. This will put pressure on the hydraulic system. Stop and check all fittings and hose connections. Tighten or reseal if required.

## **POST-INSTALLATION CHECKLIST**

- Posts Properly Shimmed And Stable
- Anchor Bolts Tightened
- Safety / Sheave Pins Properly Attached
- Electric Power Supply Confirmed
- Cables Adjusted Properly
- Safety Locks Functioning Properly
- Check For Hydraulic Leaks
- Oil Level
- Lubrication of Critical Components
- Check For Overhead Obstructions
- Electrical cords and hydraulic hoses tied off and secure
- Ramps Level
- All Screws, Bolts, and Pins Secured
- Surrounding Area Clean
- Operation, Maintenance and Safety Manuals on Site

## **STEP 12 (Operation)**

To Raise Lift:

1. Position vehicle tires in the center of the lowest ramp.
2. Set parking brake.
3. Before raising vehicle, be sure all personnel are clear of the lift and surrounding area. Pay careful attention to overhead clearances.
4. Raise the lift to the desired height by pressing the RAISE push button on the Control Panel.
5. After vehicle is raised to the desired height, lower the lift until the primary safety engages. Do not allow cables to become slack. **ALWAYS ENSURE THE SAFETY LOCK IS ENGAGED** before entering work area.

To Lower Lift:

1. Before lowering vehicle, be sure all personnel are clear of the lift and surrounding area. Pay careful attention to overhead clearances. Ensure all tools and equipment have been cleared from under the lift.
2. Raise the lift off of the Safety Lock by pressing the RAISE push button on the Control Panel. Make sure you raise the lift by at least 2 inches to allow adequate clearance for the lock to clear.
3. Pull the Safety Handle towards the front of the lift.
4. Press the LOWER push button and HOLD.
5. Hold the LOWER push button until the lift has descended completely.

## **WEEKLY MAINTENANCE**

1. Lubricate all sheaves with general purpose spray-oil.
2. Check all cable connections, bolts, and pins to ensure proper mounting.
3. Lubricate Safety Lock pivot points with general purpose spray-oil.

## **MONTHLY MAINTENANCE**

1. Check Safety Locks to ensure they are in good operating condition.
2. Check all cables for excessive signs of wear.
3. Make a visual inspection of ALL MOVING PARTS and check for excessive signs of wear.
4. Replace ALL FAULTY PARTS before lift is put back into operation.
  - **NEVER EXCEED THE RATED CAPACITY** of lift.
  - **DO NOT USE LIFT** if any component is found to be defective or worn.
  - **NEVER OPERATE LIFT** with any person or equipment below.
  - **ALWAYS STAND CLEAR** of lift when lowering or raising.
  - **ALWAYS ENSURE SAFETY LOCK IS ENGAGED** before entering work area.
  - **NEVER LEAVE LIFT IN ELEVATED CONDITION** unless safety lock is engaged.



## WIRE ROPE INSPECTION AND MAINTENANCE



◆ Lifting cables should be replaced every three to five years or when visible signs of damage are apparent. **DO NOT USE LIFT WITH DEFECTIVE / WORN CABLES.**

◆ Lifting cables should be maintained in a well-lubricated condition at all times. Wire rope is only fully protected when each wire strand is lubricated both internally and externally. Excessive wear will shorten the life of the wire rope. The factory suggested wire rope lubricant that penetrates to the core of the rope and provides long-term lubrication between each individual strand is 90-WT gear oil or ALMASOL® Wire Rope Lubricant. In order to make sure that the inner layers of the rope remain well lubricated, lubrication should be carried out at intervals not exceeding three months during operation.

◆ All sheaves and guide rollers in contact with the moving rope should be given regular visual checks for surface wear and lubricated to make sure that they run freely. This operation should be carried out at appropriate intervals generally not exceeding three months during operation. For all sheave axles, the factory recommends standard wheel bearing grease. For all sheaves and/or guide rollers, the factory recommends 90-WT gear oil or similar heavy lubricant applied by any method including pump / spray dispensing, brush, hand and/or swabbing.

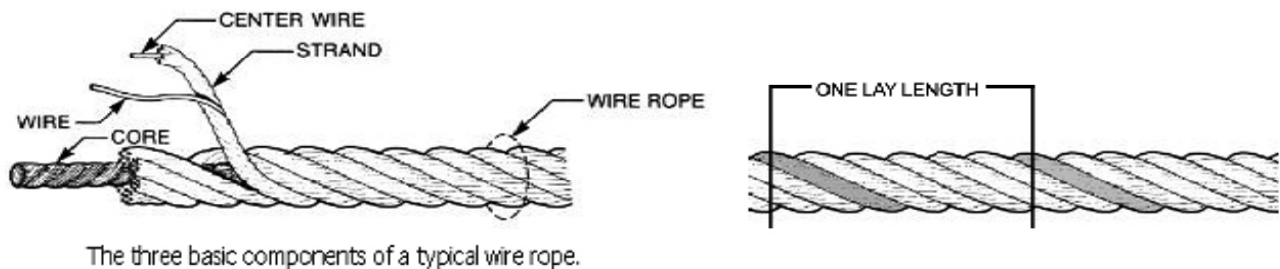
### HOW OFTEN TO INSPECT

◆ Lifting cables should be visually inspected at least once each day when in use, as suggested by American Petroleum Institute (API) RP54 guidelines.

◆ Any lifting cable that has met the criteria for removal from service must be immediately replaced.

### WHEN TO REPLACE LIFTING CABLES DUE TO BROKEN WIRES

◆ Lifting cables should be removed from service when you see six randomly distributed broken wires within any one lay length, or three broken wires in one strand within one lay length.



The three basic components of a typical wire rope.

### OTHER REASONS TO REPLACE LIFTING CABLES

- ◆ Corrosion that pits the wires and/or connectors.
- ◆ Evidence of kinking, crushing, cutting, bird-caging or a popped core.
- ◆ Wear that exceeds 10% of a wire's original diameter.
- ◆ Evidence of heat damage.

### HOW TO FIND BROKEN WIRES

◆ The first step is to relax your rope to a stationary position and move the pick-up points off the sheaves. Clean the surface of the rope with a cloth — a wire brush, if necessary — so you can see any breaks.

◆ Flex the rope to expose any broken wires hidden in the valleys between the strands.

◆ Visually check for any broken wires. One way to check for crown breaks is to run a cloth along the rope to check for possible snags.

◆ With an awl, probe between wires and strands and lift any wires that appear loose. Evidence of internal broken wires may require a more extensive rope examination.



## Safe Lift Operation

Automotive and truck lifts are critical to the operation and profitability of your business. The safe use of this and other lifts in your shop is critical in preventing employee injuries and damage to customer's vehicles. By operating lifts safely you can ensure that your shop is profitable, productive and safe. Safe operation of automotive lifts requires that only trained employees should be allowed to use the lift.

### ***TRAINING SHOULD INCLUDE, BUT NOT LIMITED TO:***

- ◆ Proper positioning of the vehicle on the runway. (See manufacturers minimize wheel base loading requirements.)
- ◆ Use of the operating controls.
- ◆ Understanding the lift capacity.
- ◆ Proper use of jack stands or other load supporting devices.
- ◆ Proper use, understanding and visual identification of safety lock devices and their operation.
- ◆ Reviewing the safety rules.
- ◆ Proper housekeeping procedures (lift area should be free of grease, oil, tools, equipment, trash, and other debris)
- ◆ A daily inspection of the lift should be completed prior to its use. Safety devices, operating controls, lift arms and other critical parts should be inspected prior to using the lift.
- ◆ All maintenance and repairs of the lift should be completed by following the manufacturer's requirements. Lift repair parts should meet or exceed OEM specifications. Repairs should only be completed by a qualified lift technician.
- ◆ The vehicle manufacturer's recommendations should be used for spotting and lifting the vehicle.

### ***LIFT OPERATION SAFETY***

- ◆ It is important that you know the load limit. Be careful that you do not overload the lift . If you are unsure what the load limit is, check the data plate found on one of the lift columns or contact the manufacturer.
- ◆ The center of gravity should be followed closely to what the manufacturer recommends.
- ◆ Always make sure you have proper overhead clearance. Additionally, check that attachments, (vehicle signs, campers, antennas, etc.) are not in the way.
- ◆ Be sure that prior to the vehicle being raised, the doors, trunk, and hood are closed securely
- ◆ Prior to being raised, make sure there is no one standing closer than six feet from the lift
- ◆ After positioning the vehicle on the lift runways, set the emergency brake, make sure the ignition is off, the doors are closed, overhead obstructions are cleared, and the transmission is in neutral.
- ◆ Double check that the automatic chock devices are in position and then when the lift is raised, observe the chocks
- ◆ Put pads or adapters in the right position under the contact points that have been recommended
- ◆ The lift should be raised just until the vehicle's wheels are about one foot off the ground. If contact with the vehicle is uneven or it appears that the vehicle is not sitting secure, carefully lower the lift and readjust.
- ◆ Always consider potential problems that might cause a vehicle to slip, i.e., heavy cargo, undercoating, etc.
- ◆ Pay attention when walking under a vehicle that is up on the hydraulic lift.

## Safe Lift Operation (Cont'd)



- ◆ **DO NOT** leave the controls while the lift is still in motion.
- ◆ **DO NOT** stand directly in front of the vehicle or in the bay when vehicle is being loaded or driven into position.
- ◆ **DO NOT** Go near vehicle or attempt to work on the vehicle when being raised or lowered.
- ◆ **REMAIN CLEAR** of lift when raising or lowering vehicle.
- ◆ **DO NOT** rock the vehicle while on the lift or remove any heavy component from vehicle that may cause excessive weight shift.
- ◆ **DO NOT** lower the vehicle until people, materials, and tools are clear
- ◆ **ALWAYS ENSURE** that the safeties are engaged and lowered on to the safety ladders before any attempt is made to work on or near vehicle.
- ◆ Some vehicle maintenance and repair activities may cause the vehicle to shift. Follow the manufacturer's guidelines when performing these operations. The use of jack stands or alternate lift points may be required when completing some repairs.
- ◆ **READ AND UNDERSTAND** all safety warning procedures before operating lift.
- ◆ **KEEP HANDS AND FEET CLEAR.** Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
- ◆ **ONLY TRAINED OPERATORS** should operate this lift. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate lift.
- ◆ **USE LIFT CORRECTLY.** Use lift in the proper manner. Never use lifting adapters other than what is approved by the manufacturer.
- ◆ **DO NOT** override self-closing lift controls.
- ◆ **CLEAR AREA** if vehicle is on danger of falling.
- ◆ **STAY ALERT.** Watch what you are doing. Use common sense. Be aware.
- ◆ **CHECK FOR DAMAGED PARTS.** Check for alignment of moving parts, breakage of parts or any condition that may affect its operation. Do not use lift if any component is broken or damaged.
- ◆ **NEVER** remove safety related components from the lift. Do not use lift if safety related components are damaged or missing.
- ◆ When the lift is being lowered, make sure everyone is standing at least six feet away.
- ◆ Be sure there are no jacks, tools, equipment, left under the lift before lowering.
- ◆ Always lower the vehicle down slowly and smoothly.

# ! DANGER

## THE MAXIMUM LIFTING CAPACITY FOR THIS LIFT IS DESCRIBED BELOW

Max Lifting Capacity / Total All Decks <b>14,000 lbs. / 6350 kg</b>
Max Lifting Capacity / Upper Deck <b>7,000 lbs. / 3175 kg</b>
Max Lifting Capacity / Lower Deck <b>7,000 lbs. / 3175 kg</b>

Exceeding the weight capacity of this lift can damage lift and/or property and may cause personal harm, injury or death to operators and/or bystanders. All vehicles **MUST** be centered on lifting platforms. Damage to lift due to overloading or misuse **IS NOT** covered under warranty.

Copyright 2011 BendPak Inc.

P/N 593S385

# ! DANGER

## THE MAXIMUM LIFTING CAPACITY FOR THIS LIFT IS DESCRIBED BELOW

Max Lifting Capacity / Total All Decks <b>18,000 lbs. / 8165 kg</b>
Max Lifting Capacity / Upper Deck <b>6,000 lbs. / 2722 kg</b>
Max Lifting Capacity / Middle Deck <b>6,000 lbs. / 2722 kg</b>
Max Lifting Capacity / Lower Deck <b>6,000 lbs. / 2722 kg</b>

Exceeding the weight capacity of this lift can damage lift and/or property and may cause personal harm, injury or death to operators and/or bystanders. All vehicles **MUST** be centered on lifting platforms. Damage to lift due to overloading or misuse **IS NOT** covered under warranty.

Copyright 2011 BendPak Inc.

P/N 5905755

## WARNINGS

Read the entire operation manual, warnings and operation instructions before using this lift. If any questions arise as to the safety or operation of this lift, contact your property manager, building engineer, authorized dealer, or authorized service center. Always use caution when operating this lift. Never allow children or persons under the influence of drugs or alcohol to use or maintain this lift. Serious injury, property damage, and/or death can occur if this lift is improperly used or maintained.

### ⚠ WARNING

**ALWAYS double-check under clearance BEFORE driving vehicle under lift platform.**  
**ALWAYS double-check overhead clearance BEFORE raising lift platform.**

### ⚠ WARNING

**KEEP ALL OBJECTS, HANDS AND FEET CLEAR AT ALL TIMES.**  
**Never place hands, arms or feet near any moving parts during operation.**  
**Serious injury or death can occur.**

### ⚠ WARNING

- Read the entire operation manual, warnings and operation instructions before using this lift.
- NEVER leave the lift unattended while partially raised or lowered.
- Always use caution when operating this lift. Never allow children or persons under the influence of drugs or alcohol to use or maintain this lift.
- Serious injury, property damage, and/or death can occur if this lift is improperly used.
- Keep hands and feet clear. Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
- Only trained operators should operate this lift. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate lift.
- Guard against electric shock. This lift must be grounded while in use to protect the operator from electric shock.
- Risk of explosion. This lift has internal arcing or sparking parts which should not be exposed to flammable vapors.
- Maintain lift with care. Keep lift clean for better and safe performance. Follow manual for proper lubrication and maintenance instructions. Keep control handles and/or buttons dry, clean and free from grease and oil.
- Stay alert - watch what you are doing. Use common sense and always be aware.
- Check for damaged parts. Check for alignment of moving parts, breakage of parts or any condition that may affect safe operation of the lift. Do not use lift if any component is broken or damaged.
- Never remove safety related components, instruction or warning labels. Do not use lift if safety related components, instruction or warning labels are damaged or missing.

## OPERATION INSTRUCTIONS

Read the entire operation manual and warning instructions shown on the reverse side of this placard before operating this parking lift.

### IMPORTANT NOTE

The parked and locked position of the lift determines the height of the vehicles that can be safely parked underneath the lift. Make sure that you are using only vehicles that are of the proper height for the parked and locked setting.

### PLACEMENT OF UPPER VEHICLE / PRE-LIFTING PROCEDURE

1. Drive top vehicle onto the first elevating platform. Vehicles may be driven in nose first or backed in.
2. Be sure that all of the vehicle's tires are resting securely within the recessed ramp surface. Never leave a vehicle with its tires on the raised portion of the platform or curbs.
3. Turn off car engine, engage safety brake, and place the vehicle's gear selector in Park. If vehicle is manual transmission, place the transmission in first gear.
4. Walk around the lift to ensure no obstructions will interfere with the vehicle being lifted.
5. Position yourself within reach of the operator controls and clear of all moving parts and pinch points.

### LIFTING PROCEDURE / FIRST PLATFORM

1. With the vehicle safely positioned on the first (upper) platform, check the lift perimeter to ensure that no objects are in the platform's way, and that no persons except for lift operator are within 10 feet.
2. During operation, observe the entire perimeter of the lift to ensure there are no obstructions that may damage vehicle and/or lift.
3. Press and activate the RAISE(↑) button and hold until upper platform reaches the first parked and locked position. When the first parked and locked position is reached you should hear a slight clicking sound which is the sound of the lock bar engaging into locked position.
4. ALWAYS raise the platform until it reaches the first parked and locked position before loading vehicle onto next lift platform.
5. After reaching the first parked and locked position, release the RAISE(↑) button then press and activate the LOWER(↓) button to lower the platform onto the parked and locked position. Once downward movement stops, release the LOWER(↓) button.
6. Never walk under the raised platform - always walk around and stay clear at all times.

► **IMPORTANT NOTE** - Activate the RED EMERGENCY STOP button to stop lift operation at any time. ◀

### LIFTING PROCEDURE / LOWER PLATFORM(S)

1. With upper platform(s) safely parked and locked and a lower platform in ready position, drive next vehicle onto the next available elevating platform. **ALWAYS double check under clearance BEFORE driving vehicle under lift platform(s).**
2. Be sure that all of the vehicle's tires are resting securely within the recessed ramp surface. Never leave a vehicle with its tires on the raised portion of the drive on ramp or curbs.
3. Turn off car engine, engage safety brake, and place the vehicle's gear selector in Park. If vehicle is manual transmission, place the transmission in first gear.
4. Walk around the lift to ensure no obstructions will interfere with the vehicle being lifted.
5. Position yourself within reach of the operator controls and clear of all moving parts and pinch points. check to ensure that no objects are in the platform's way, and that no persons except for lift operator are within 10 feet.
6. Press and activate the RAISE(↑) button and hold until upper platform(s) reach the next parked and locked position. When the next parked and locked position is reached you should hear a slight clicking sound which is the sound of the lock bar engaging into locked position.
7. After reaching the next parked and locked position, release the RAISE(↑) button then press and activate the LOWER(↓) button to lower the platform(s) onto the parked and locked position(s). Once downward movement stops, release the LOWER(↓) button.
8. ALWAYS raise the platform until it reaches a parked and locked position before loading vehicle onto next lift platform or at floor level underneath elevated platforms.
9. Never walk under raised platforms - always walk around and stay clear at all times.

### REMOVAL OF LOWER (FLOOR LEVEL) VEHICLE

1. After making sure the surrounding area and driving lanes are clear, slowly drive out the lower vehicle.
- **WARNING** - Do not attempt to enter lift area and remove vehicles unless platforms are resting on the parked and locked position.

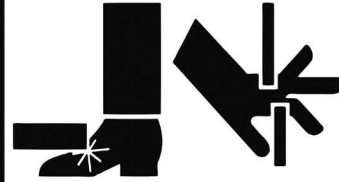
### LOWERING THE LIFT

1. Walk around the lift to make sure nothing is below or near the lift platform's entire lower area to prepare for descent.
  2. Be certain that no persons except the lift operator are within 10 feet of the lift area.
  3. Press and activate the RAISE(↑) button for three seconds to elevate the lift platform(s) enough to allow clearance of the mechanical locks.
  4. Release the safety lock by pulling the Lock Release Handle and hold.
  5. Press and activate the LOWER(↓) button to lower the platform(s).
  6. When lowering lift platforms always be watchful for objects, persons or animals that may wander under the lift platform during operation.
  7. Maintain visual contact with lift platforms during all operations.
- **WARNING** - Immediately cease operation if platforms become unlevel or if area becomes obstructed.
8. Platform will continue to lower as long as you have the LOWER(↓) switch activated and the Lock Release Handle pulled or until the next locked position is reached.
  9. During descent, and when necessary to park lift at a mid-level parked and locked position, release the Lock Release Handle when the lowest platform comes within 12" of the floor. Continue lowering the platform(s) until downward movement stops and the lift is settled at a mid-level parked and locked position - release the LOWER(↓) button.
  7. Release the Lock Release Handle and operator switch upon full descent of platform(s).
  9. Carefully drive out the lower vehicle after making sure all is clear before lowering the lift platform.



PIN 5905370

## DANGER-PELIGRO



**MOVING MACHINERY**  
**KEEP HANDS AND FEET**  
**CLEAR AT ALL TIMES**  
**MANTENGA LAS MANOS Y LOS**  
**PIES CLARO EN TODO MOMENTO**

## DANGER-PELIGRO



**Remain clear of lift at all times**  
**when raising or lowering vehicles.**  
**> NO RIDERS ON PLATFORMS <**  
**Trained operators only**  
**are to use lift.**

## ⚠ WARNING

### PARKING LIFT WIRE ROPE INSPECTION AND MAINTENANCE

- Lifting cables should be replaced every (5) five years or when visible signs of damage are apparent. **DO NOT USE LIFT WITH DEFECTIVE OR WORN CABLES.**
- Wire rope should be maintained in a well-lubricated condition at all times. Wire rope is only fully protected when each wire strand is lubricated both internal and external. Excessive wear will shorten the life of the wire rope. The factory suggests wire rope lubricant that penetrates to the core of the rope and provides long-term lubrication between each individual strand. In order to make sure that the inner layers of the rope remain well lubricated, lubrication should be carried out at intervals not exceeding three (3) months during operation.
- All sheaves and guide rollers in contact with the moving wire rope should be given regular visual checks for surface wear and lubricated to make sure that they run freely. This operation should be carried out at appropriate intervals generally not exceeding three (3) months during operation. The factory recommends applying wheel bearing grease or similar heavy lubricant, through the use of a grease gun, to the zerk fittings of the sheave axes and sheaves.

**Failure to read, understand and follow these instructions may cause death or serious injury. Read and understand these instructions before using lift.**

Copyright 2011 BendPak Inc.

PIN 5905375



## LIFT WILL NOT RAISE

### **POSSIBLE CAUSE**

1. Air in oil, (1,2,8,12)
2. Cylinder binding, (9)
3. Cylinder leaks internally, (9)
4. Motor run backward under pressure, (11)
5. Lowering valve leaks, (3,4,6,10,11)
6. Motor runs backwards, (7,13,11)
7. Pump damaged, (10,11)
8. Pump won't prime, (1,8,12,13,3,10,11)
9. Relief valve leaks, (10,11)
10. Voltage to motor incorrect, (7,13,11)

### **REMEDY**

### **INSTRUCTION**

- |  |  |
|--|--|
| 1. Check for proper oil level. . . . .                               | The oil level should be up to the bleed screw in the reservoir with the lift all the way down. |
| 2. Bleed cylinders. . . . .  | See Installation Manual  |
| 3. Flush release valve to get rid of. . . . . possible contamination | Hold release handle down and start unit allowing it to run for 15 seconds.                     |
| 4. Dirty oil. . . . .  | Replace oil with clean Dexron ATF.   |
| 5. Tighten all fasteners. . . . .                                    | Tighten fasteners to recommended torques.  |
| 6. Check for free movement of release. . . . .                       | If handle does not move freely, replace bracket or handle assembly.                            |
| 7. Check if motor is wired correctly. . . . .                        | Compare wiring of motor to electrical diagram on drawing.                                      |
| 8. Oil seal damaged or cocked . . . . .                              | Replace oil seal around pump shaft.  |
| 9. See Installation Manual . . . . .                                 | Contact BendPak Customer Support.  |
| 10. Replace with new part . . . . .                                  | Replace with new part.   |
| 11. Return unit for repair . . . . .                                 | Return unit for repair.  |
| 12. Inlet screen clogged . . . . .                                   | Clean inlet screen or replace.   |
| 13. Check wall outlet voltages and wiring . . . . .                  | Make sure unit and wall outlet are wired properly.   |

## MOTOR WILL NOT RUN

### POSSIBLE CAUSE

1. Fuse blown, (5,2,1,3,4)
2. Limit switch burned out, (1,2,3,4)
3. Microswitch burned out, (1,2,3,4)
4. Motor burned out, (1,2,3,4,6)
5. Voltage to motor incorrect, (2,1,8)

### REMEDY

- | REMEDY  | INSTRUCTION   |
|---|---|
| 1. Check for correct voltage . . . . .            | Compare supply voltage with voltage on motor name tag. Check that the wire is sized correctly. N.E.C. table 310-12 requires AWG 10 for 25 Amps.   |
| 2. Check motor is wired correctly . . . . .       | Compare wiring of motor to electrical diagram on drawing.   |
| 3. Don't use extension cords . . . . .            | According to N.E.C. : " The size of the conductors... should be such that the voltage drop would not exceed 3% to the farthest outlet for power..." Do not run motor at 115 VAC – damage to the motor will occur. |
| 4. Replace with new part . . . . .                | Replace with new part.  |
| 5. Reset circuit breaker/fuse . . . . .           | Reset circuit breaker/fuse.   |
| 6. Return unit for repair . . . . .               | Return unit for repair.   |
| 7. See Installation Manual . . . . .              | See Installation Manual.  |
| 8. Check wall outlet voltage and wiring . . . . . | Make sure unit and wall outlet is wired properly. Motor must run at 208/230 VAC.  |

## LIFT LOWERS SLOWLY OR NOT AT ALL

### POSSIBLE CAUSE

1. Cylinders binding, (1)
2. Release valve clogged, (5,4,2,3)
3. Pressure fitting too long, (6)

### REMEDY

- | REMEDY  | INSTRUCTION  |
|---|--|
| 1. See Installation Manual . . . . .                | Contact BendPak Customer Support.  |
| 2. Replace with new part . . . . .                  | Replace with new part.   |
| 3. Return for repair . . . . .                      | Return for repair.   |
| 4. Check oil. . . . .                               | Use clean 10-WT hydraulic oil or Dexron automatic transmission fluid only. If ATF is contaminated, replace with clean ATF and clean entire system. |
| 5. Clean release valve . . . . .                    | Wash release valve in solvent and blow out with air.   |
| 6. Replace fitting with short thread lead . . . . . | Replace fitting with short thread lead.  |



## WILL NOT RAISE LOADED LIFT

### **POSSIBLE CAUSE**

1. Air in oil, (1,2,3,4)
2. Cylinder binding, (5)
3. Cylinder leaks internally, (5)
4. Lift overloaded, (6,5)
5. Lowering valve leaks, (7,8,1,5,9)
6. Motor runs backwards, (10,12,9)
7. Pump damaged, (5,9)
8. Pump won't prime, (1,2,3,4,5,11,9)
9. Relief valve leaks, (8,5,9)
10. Voltage to motor incorrect, (10,12,5)

### **REMEDY**

### **INSTRUCTION**

- |  |  |
|--|--|
| 1. Check oil level . . . . .                       | The oil level should be up to the bleed screw in the reservoir with the lift all the way down. |
| 2. Check/Tighten inlet tubes . . . . .             | Replace inlet hose assembly.   |
| 3. Oil seal damaged or cocked . . . . .            | Replace oil seal and install.  |
| 4. Bleed cylinders . . . . .                       | See Installation Manual.   |
| 5. See Installation Manual . . . . .               | Contact BendPak Customer Support.  |
| 6. Check vehicle weight . . . . .                  | Compare weight of vehicle to weight limit of the lift.   |
| 7. Flush release valve . . . . .                   | Hold release handle down and start unit allowing it to run for 15 seconds.                     |
| 8. Replace with new part . . . . .                 | Replace with new part.   |
| 9. Return unit for repair . . . . .                | Return unit for repair.  |
| 10. Check motor is wired correctly . . . . .       | Compare wiring of motor to electrical diagram on power unit drawing.                           |
| 11. Inlet screen clogged . . . . .                 | Clean inlet screen or replace.   |
| 12. Check wall outlet voltage and wiring . . . . . | Make sure unit and wall outlet is wired properly.  |

## **IMPORTANT**

If vehicle becomes stranded in the air, follow all operation instructions as shown on pages 31 and 38. If after observing that all mechanical locks are released and the lift still fails move following all standard operating procedures, immediately stop using the lift and contact factory or factory approved service center for further instructions.

## LIFT WILL NOT STAY UP

### POSSIBLE CAUSE




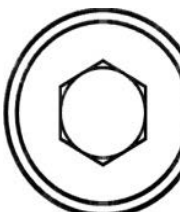
1. Air in oil, (1,2,3)
2. Check valve leaks, (6)
3. Cylinders leak internally, (7)
4. Lowering valve leaks, (4,5,1,7,6)
5. Leaking fittings, (8)

### REMEDY

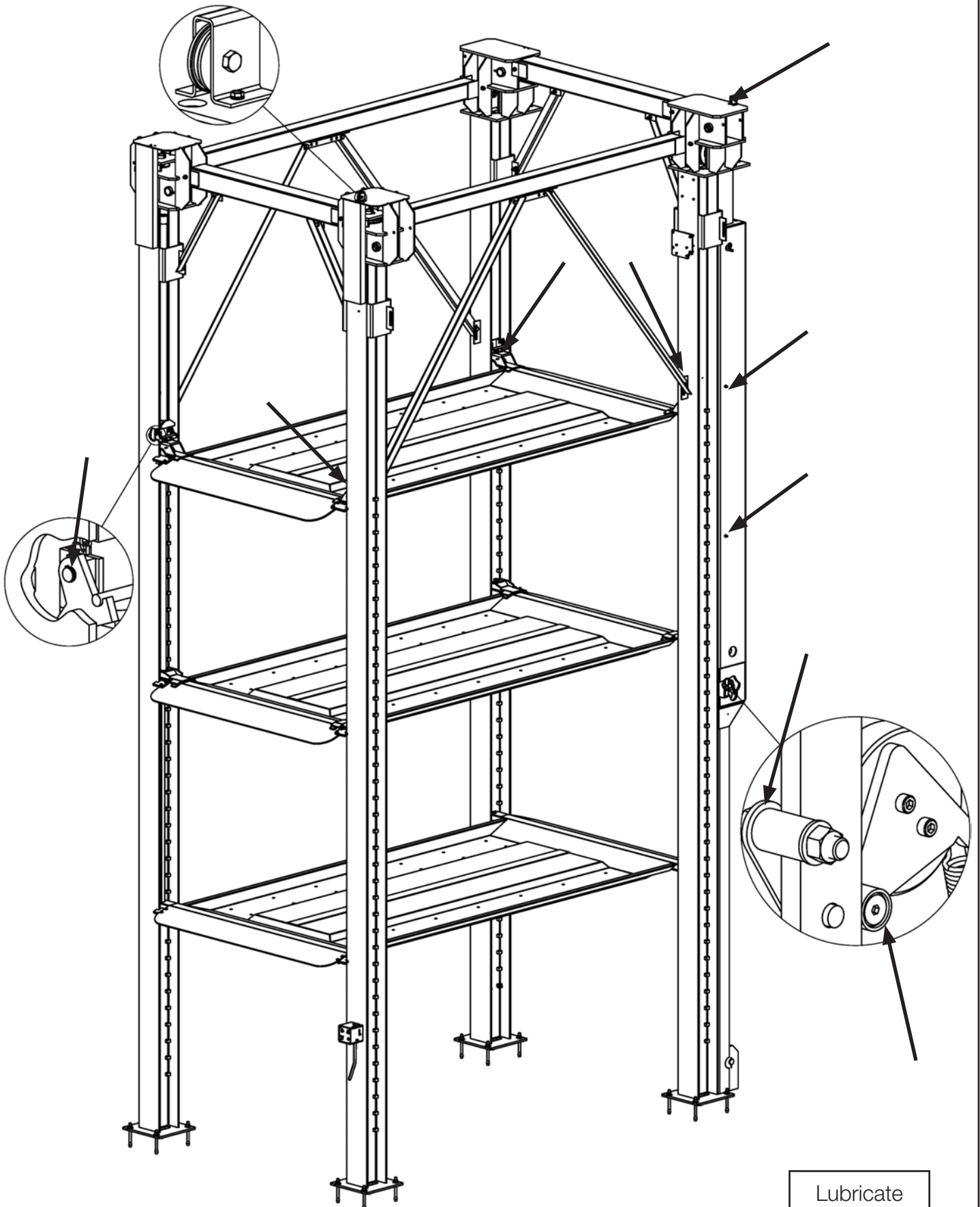
1. Check oil level . . . . . The oil level should be up to the bleed screw in the reservoir with the lift all the way down.
2. Oil seal damaged and cocked . . . . . Replace oil seal around pump shaft.
3. Bleed cylinder . . . . . Refer to Installation Manual.
4. Flush release valve . . . . . Hold release handle down and start unit allowing it to run for 15 seconds.
5. Replace with new valve . . . . . Replace with new valve.
6. Return unit for repair . . . . . Return unit for repair.
7. See Installation Manual . . . . . Contact BendPak Customer Support.
8. Check complete hydraulic system for leaks. . . . . Tighten all hydraulic fittings and inspect all hoses.

### INSTRUCTION

## Torque Recommendations

VALUES ARE STATED IN FOOT POUNDS (ft-lb)					
					
		SAE 0-1-2	SAE Grade 5	SAE Grade 8	SOCKET HEAD CAP SCREW
		CLASS 4.8	CLASS 8.8	CLASS 10.9	CLASS 12.9
Bolt Size (SAE)	Bolt Size (Metric)				
1/4-20	M6 x 1.0	6	10	14	13
5/16-18	M8 x 1.25	12	19	29	31.4
3/8-16	M10 x 1.50	20	33	47	62
7/16-14		32	54	78	
1/2-13	M12 x 1.75	47	78	119	108
9/16-12	M14 x 2.00	69	114	169	173
5/8-11	M16 x 2.00	96	154	230	269
3/4-10	M18 x 2.50	155	257	380	372
7/8-9	M22 x 2.50	206	382	600	716
3/4 Anchor Bolts		75 MIN 110 MAX			

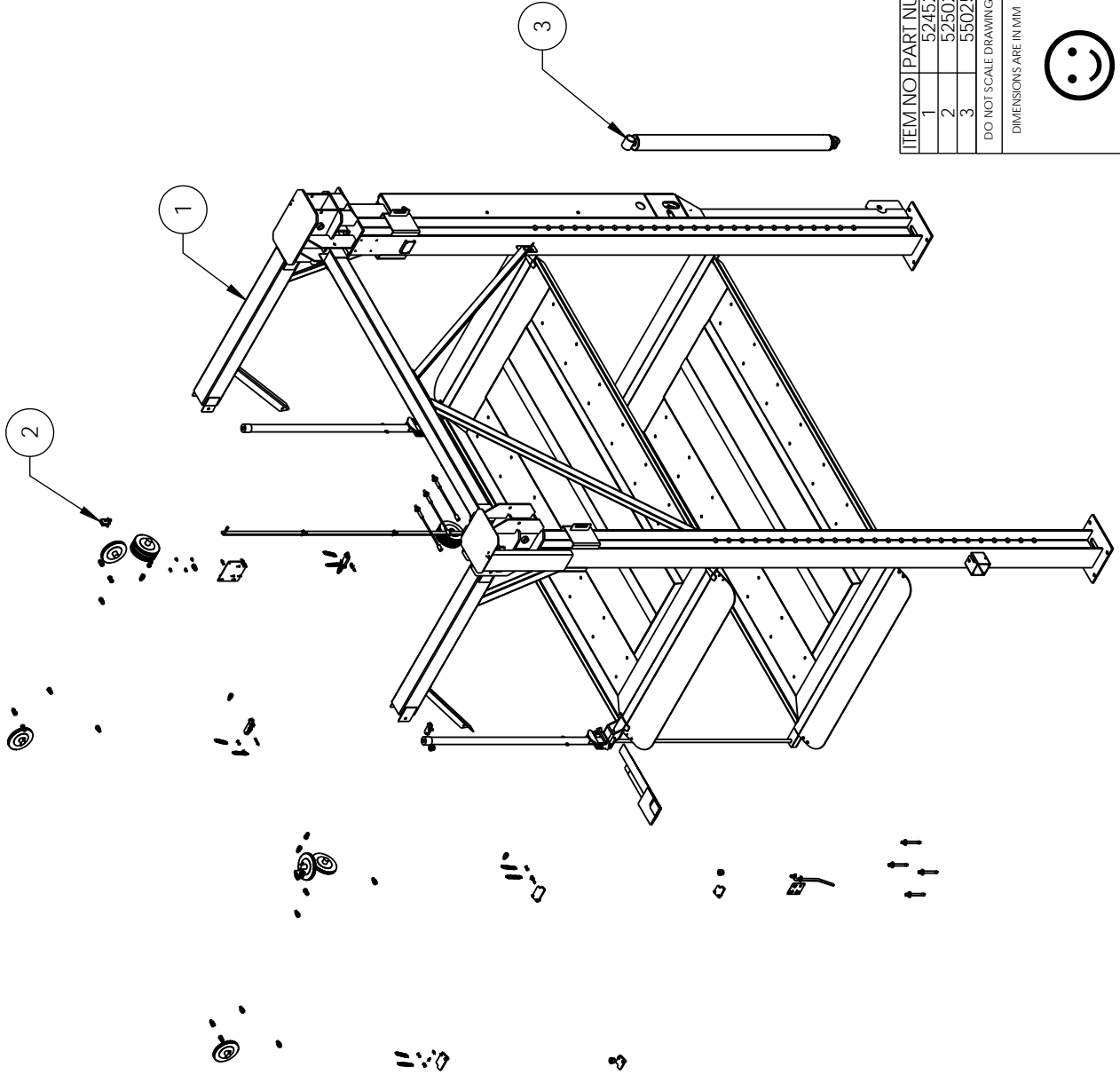
## Grease Port / Lubrication Locations



[illegible]

## INSTALLATION FORM

Customer Name:		Date of Installation:			
Company Name:					
Street Address:					
City:	State:	Zip:			
Phone:		Fax:			
<b>Pre-Install Agreement</b>					
<p>I, (the undersigned) acting as the owner of the business listed above assume responsibility for any permits required, either state or county mandated, related to the installation and/or operation of this equipment. I assume responsibility for the concrete floor and condition thereof, now or later, where the above equipment model(s) are installed. I will assume all liability for losses, damages (including loss of use), expenses, demands, claims, and judgments in connection with or arising out of any personal injury or alleged damage to property, sustained or alleged to have been sustained in connection with, or to have arisen out of the condition and/or drilling of the concrete near or adjacent to the equipment model(s) listed above. If my employee(s) offer assistance of any kind during installation of the above equipment model(s) I hold the manufacturer and installation company harmless of all liability for losses, damages, expenses, claims, and judgments in connection with or arising out of any personal injury or alleged damage to property, sustained or alleged to have been sustained in connection with the installation of the above equipment model(s).</p> <p>I understand that the lifts above are supplied with concrete fasteners meeting the criteria of the American National Standard "Automotive Lifts - Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-1998, and that I will be responsible for all charges related to any special regional structural and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).</p>					
Customer Signature:		Print Name:	Date:		
<b>Post-Installation Check-Off</b>					
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Base and Columns Properly Shimmed And Stable  <input type="checkbox"/> Anchor Bolts Tightened  <input type="checkbox"/> Runways Properly Attached and Secured  <input type="checkbox"/> Electric Power Supply Confirmed  <input type="checkbox"/> Cables / Chains Adjusted Properly  <input type="checkbox"/> Safety Locks Functioning Properly  <input type="checkbox"/> Check For Hydraulic Leaks  <input type="checkbox"/> Oil Level                 </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Lubrication of Critical Components  <input type="checkbox"/> Lift Adapters  <input type="checkbox"/> Check For Overhead Obstructions  <input type="checkbox"/> Runways Level  <input type="checkbox"/> All Screws, Bolts, and Pins Secured  <input type="checkbox"/> Surrounding Area and Lift Clean In Appearance  <input type="checkbox"/> Proper Operation, Maintenance and Safety Explained  <input type="checkbox"/> Operation and Safety Manual(s) Left at Site                 </td> </tr> </table>				<input type="checkbox"/> Base and Columns Properly Shimmed And Stable <input type="checkbox"/> Anchor Bolts Tightened <input type="checkbox"/> Runways Properly Attached and Secured <input type="checkbox"/> Electric Power Supply Confirmed <input type="checkbox"/> Cables / Chains Adjusted Properly <input type="checkbox"/> Safety Locks Functioning Properly <input type="checkbox"/> Check For Hydraulic Leaks <input type="checkbox"/> Oil Level	<input type="checkbox"/> Lubrication of Critical Components <input type="checkbox"/> Lift Adapters <input type="checkbox"/> Check For Overhead Obstructions <input type="checkbox"/> Runways Level <input type="checkbox"/> All Screws, Bolts, and Pins Secured <input type="checkbox"/> Surrounding Area and Lift Clean In Appearance <input type="checkbox"/> Proper Operation, Maintenance and Safety Explained <input type="checkbox"/> Operation and Safety Manual(s) Left at Site
<input type="checkbox"/> Base and Columns Properly Shimmed And Stable <input type="checkbox"/> Anchor Bolts Tightened <input type="checkbox"/> Runways Properly Attached and Secured <input type="checkbox"/> Electric Power Supply Confirmed <input type="checkbox"/> Cables / Chains Adjusted Properly <input type="checkbox"/> Safety Locks Functioning Properly <input type="checkbox"/> Check For Hydraulic Leaks <input type="checkbox"/> Oil Level	<input type="checkbox"/> Lubrication of Critical Components <input type="checkbox"/> Lift Adapters <input type="checkbox"/> Check For Overhead Obstructions <input type="checkbox"/> Runways Level <input type="checkbox"/> All Screws, Bolts, and Pins Secured <input type="checkbox"/> Surrounding Area and Lift Clean In Appearance <input type="checkbox"/> Proper Operation, Maintenance and Safety Explained <input type="checkbox"/> Operation and Safety Manual(s) Left at Site				
<p>I, (the undersigned) confirm that the above installation procedure(s) were completed. I understand that I will be responsible for maintaining this equipment as outlined in the accompanied <b>Installation and Operation Manual</b> and <b>ANSI/ALI ALOIM Safety Requirements for Operation, Inspection and Maintenance</b>. I understand that personal injury and/or damage to property can occur if the above equipment model(s) are not maintained or used improperly and take full responsibility for training my employees on proper use and maintenance of this equipment. I hold the manufacturer and installation company harmless of all liability for losses, damages (including loss of use), expenses, demands, claims, and judgments in connection with or related to improper use, improper training, or lack of required maintenance. I understand that the warranty does not cover replacement of parts worn or damaged due to normal use or lack of required maintenance</p>					
Customer Signature:		Print Name:	Date:		
Installer Signature:		Print Name:	Date:		
Installer Company Name:					
Street Address:					
City:	State:	Zip:			
Phone:		Phone ( Other ):			

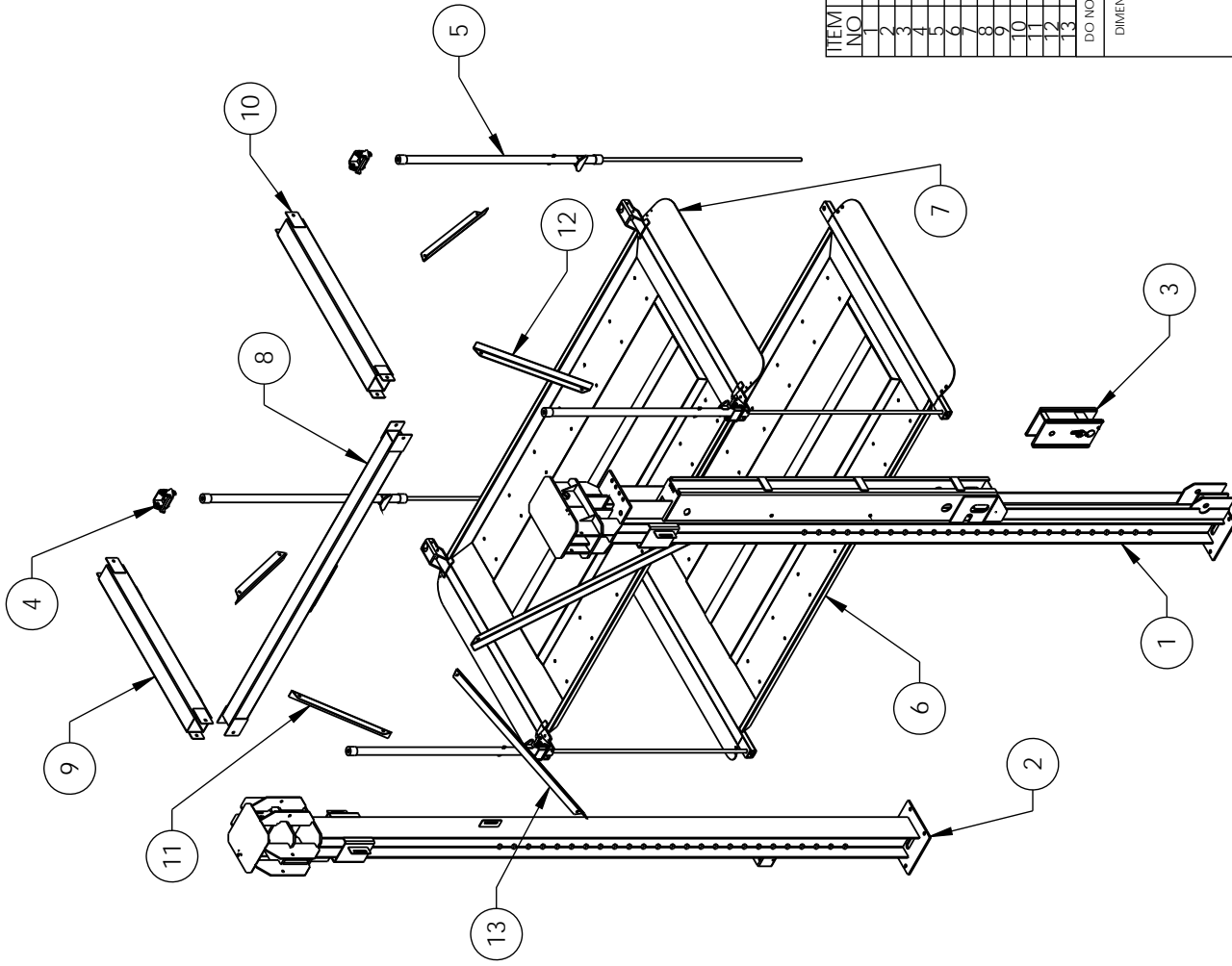


ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5245277	PL-14000 LIFT SUPERSTRUCTURE	1	A
2	5250282	PL-14000 PARTS BOX	1	A
3	5502505	PULL CYLINDER ASSEMBLY Ø5.0 x 82	1	A
DO NOT SCALE DRAWING				
DRAWN		NAME	DATE	
CHECKED		TM	01/14/2014	
THIRD ANGLE PROJECTION				
<b>Proprietary and Confidential</b> THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. AND IS NOT TO BE REPRODUCED IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.				
MATERIAL: --- SIZE: ---				
TITLE: PL-14000 PRODUCTION LIFT VER C			DWG. NO. 5260236	REV A
			SCALE: 1:60 SHEET 1 OF 3	



**NOTE: UNLESS OTHERWISE SPECIFIED.**  
 1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING





ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5600824	PL-14000 POWER POST WELDMENT	1	A
2	5600824	PL-14000 FRONT CONTROL POST WELDMENT	1	A
3	5215674	PL-14000 PULL ROY ASSEMBLY	1	A
4	5215674	PL-14000/18000 CABLE BREAK ASSEMBLY	4	A
5	5215674	PL-14000 RAMP LIFTING ROD ASSEMBLY	4	A
6	5600815	PL-14000/18000 BOTTOM RAMP WELDMENT	1	A
7	5620702	PL-14000 TOP RAMP WELDMENT	1	A
8	5600579	PL-14000/18000 LONG CROSS TUBE WELDMENT	1	B
9	5600584	PL-14000/18000 CROSS TUBE WELDMENT SHORT FRONT	1	B
10	5600738	PL-14000/18000 CROSS TUBE WELDMENT SHORT REAR	1	A
11	5721376	PL-14000/18000 FRONT ANGLE	2	C
12	5721375	PL-14000/18000 REAR ANGLE	2	C
13	5721377	PL-14000/18000 SIDE ANGLE	2	C

DO NOT SCALE DRAWING	NAME	DATE
DIMENSIONS ARE IN MM	TM	02/22/2013
	CHECKED	

THIRD ANGLE PROJECTION	TITLE:
	PL-14000 LIFT SUPERSTRUCTURE
MATERIAL: ---	SIZE DWG. NO. A 5245277
SIZE: ---	REV A

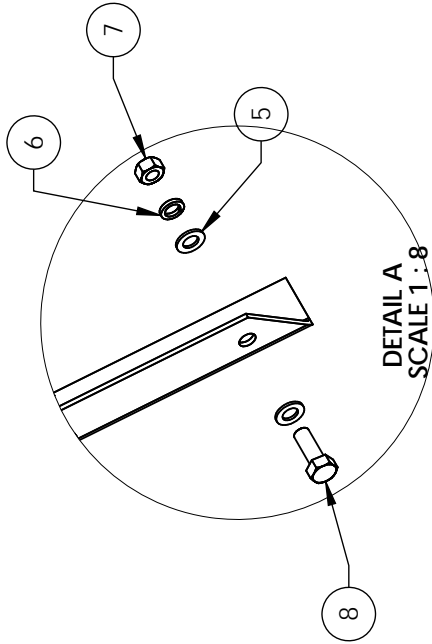
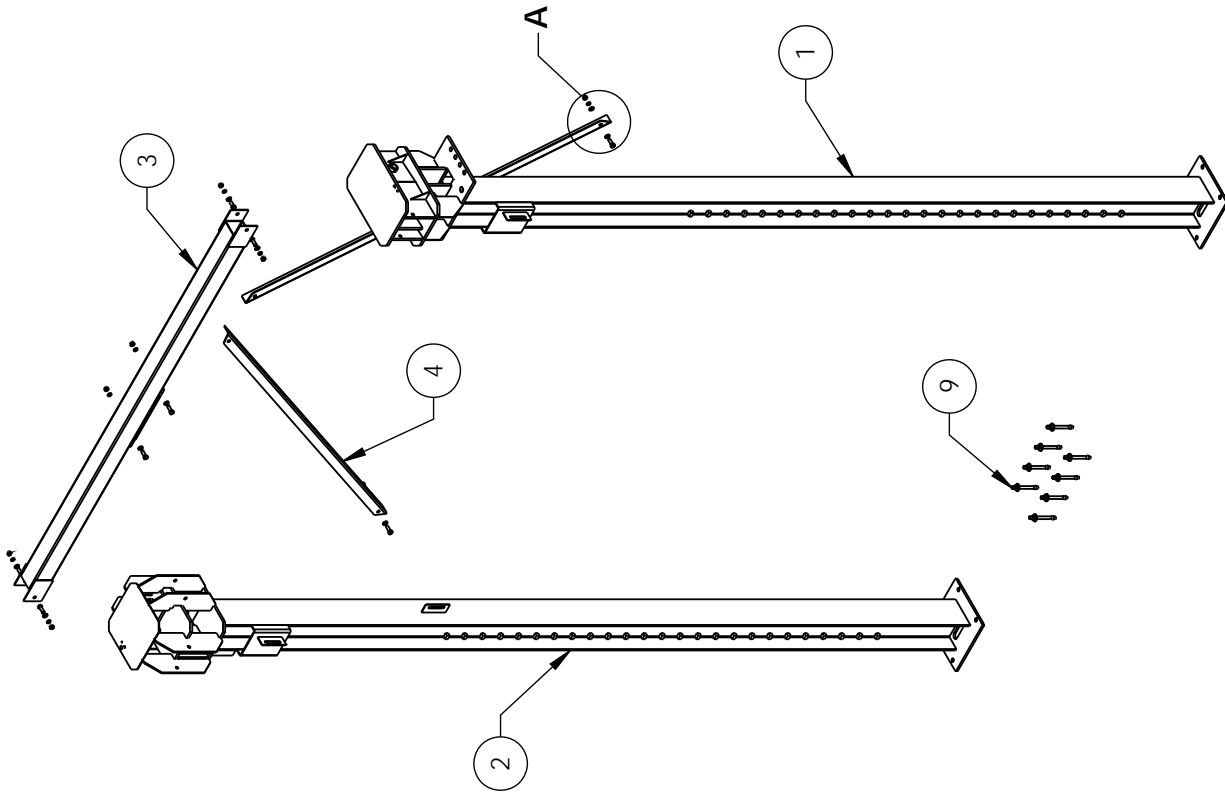
  

PROPRIETARY AND CONFIDENTIAL	1645 LEMONWOOD DR.
THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. AND IS NOT TO BE REPRODUCED IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.	SANTA PAULA, CA 93060

**NOTE: UNLESS OTHERWISE SPECIFIED,**  
 1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING

NEXT ASSEMBLY  
 5260236

SCALE: 1:60  
 SHEET 1 OF 1



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5600825	PL-14000 CLOSE OUT BACK POST WELDMENT	1	--
2	5600826	PL-14000 CLOSE OUT FRONT POST WELDMENT	1	A
3	5600579	PL-14000/18000 LONG CROSS TUBE WELDMENT	1	B
4	5721377	PL-14000/18000 SIDE ANGLE	2	C
5	5545342	WASHER M18 FLAT	10	--
6	5545350	WASHER M18 x 28 SL	8	--
7	5535202	NUT M18 x 2.5 CL 8.8	8	--
8	5530319	HHB M18 x 2.5 x 50 CL 8.8	8	--
9	5530308	AB 3/4" x 7"	8	--

DO NOT SCALE DRAWING	NAME	DATE
DIMENSIONS ARE IN MM	TM	01/14/2014
	CHECKED	

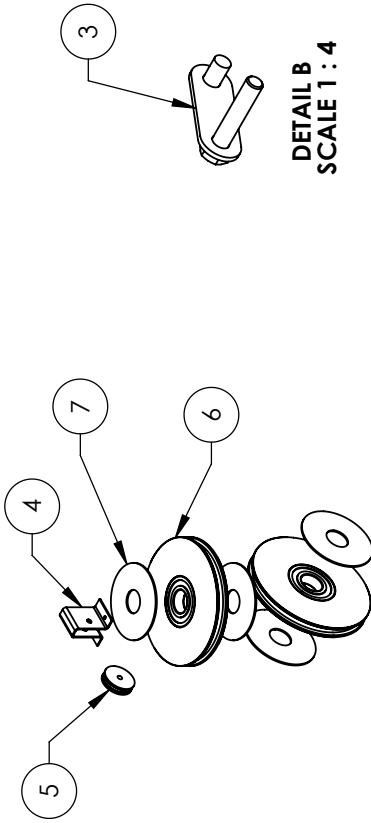
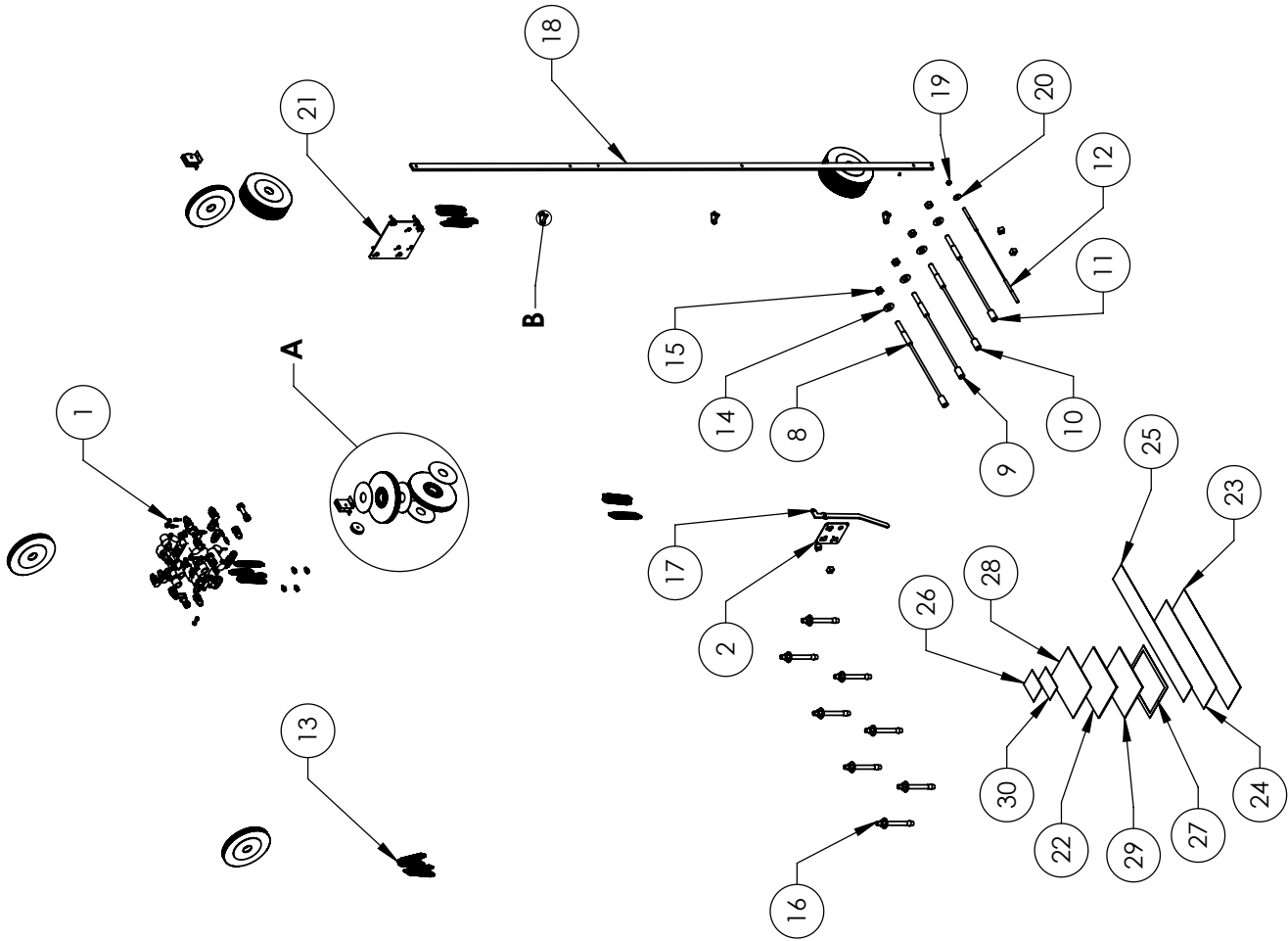
  

THIRD ANGLE PROJECTION	TITLE: PL-14000 CLOSEOUT LEG SUPERSTRUCTURE VER C
	SIZE DWG. NO. A 5175520
REVISIONS	REV A

FOR USE WITH 5260236	SCALE: 1:50	SHEET 1 OF 1
----------------------	-------------	--------------

**NOTE: UNLESS OTHERWISE SPECIFIED,**  
 1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING



DETAIL B  
SCALE 1:4

DETAIL A  
SCALE 1:4

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5174730	PL-14000 PARTS BAG	1	A
2	573398	PL-14000/18000 POST LINKAGE WELDMENT	3	C
3	5600580	PL-14000/18000 SAFETY SHEAVE BRACKET	3	C
4	5701360	PL-14000/18000 SAFETY CABLE SHEAVE	2	C
5	5742923	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
6	5218503	PL-14000 CROSSTUBE SHEAVE ASSEMBLY	12	A
7	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
8	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
9	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
10	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
11	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
12	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
13	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
14	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
15	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
16	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
17	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
18	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
19	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
20	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
21	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
22	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
23	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
24	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
25	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
26	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
27	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
28	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
29	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A
30	5218503	PL-14000/18000 SAFETY CABLE ASSEMBLY	12	A

DO NOT SCALE DRAWING

NAME: DATE: 01/13/2014

DRAWN: TM: 01/13/2014

CHECKED:

THIRD ANGLE PROJECTION

SMILEY FACE

DIMENSIONS ARE IN MM

TITLE: PL-14000 PARTS BOX

SIZE DWG. NO. 5250282

REV B

SCALE: 1:35

SHEET 1 OF 1

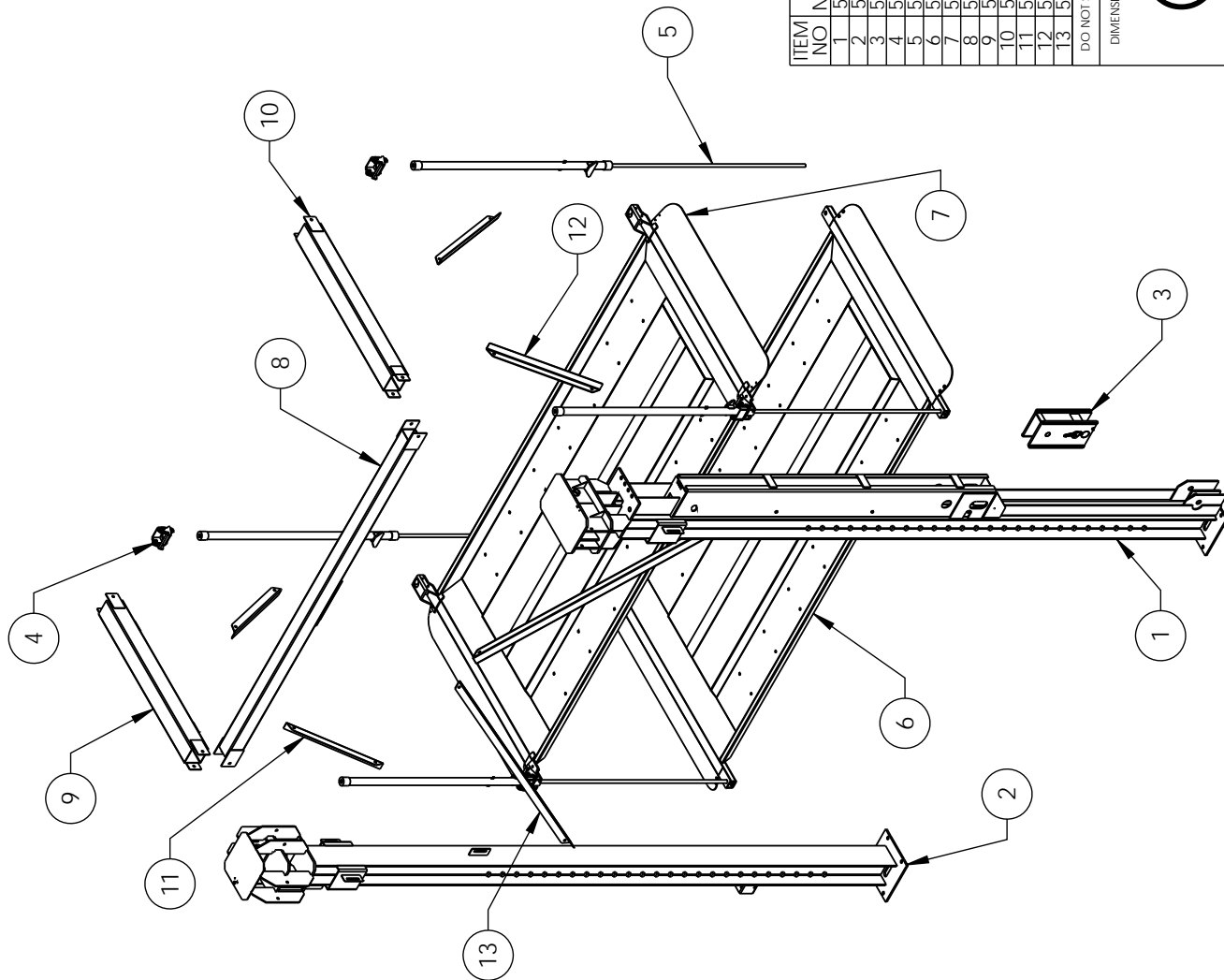
PROPRIETARY AND CONFIDENTIAL  
THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. AND IS NOT TO BE REPRODUCED IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. B

1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

**NOTE: UNLESS OTHERWISE SPECIFIED, SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING**

NEXT ASSEMBLY  
5260236

48



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5600824	PL-14000 POWER POST WELDMENT	1	A
2	5600823	PL-14000 FRONT CONTROL POST WELDMENT	1	A
3	5215642	PL-14000 PULLBOX ASSEMBLY	1	A
4	5215647	PL-14000/18000 CABLE BREAK SAFETY ASSEMBLY	4	A
5	5215645	PL-14000 RAMP LIFTING ROD ASSEMBLY	4	A
6	5600821	PL-14000XL BOTTOM RAMP WELDMENT	1	A
7	5600831	PL-14000XL TOP RAMP WELDMENT	1	A
8	5600794	PL-14000XL LONG CROSS TUBE WELDMENT	1	A
9	5600584	PL-14000/18000 CROSS TUBE WELDMENT - SHORT FRONT	1	B
10	5600738	PL-14000/18000 CROSS TUBE WELDMENT - SHORT REAR	1	A
11	5721376	PL-14000/18000 FRONT ANGLE	2	C
12	5721375	PL-14000/18000 REAR ANGLE	2	C
13	5721126	PL-14000XL SIDE ANGLE	2	A

DO NOT SCALE DRAWING	NAME	DATE
DIMENSIONS ARE IN MM	TM	01/22/2014
	CHECKED	

THIRD ANGLE PROJECTION	TITLE: PL-14000XL LIFT SUPERSTRUCTURE
	SIZE DWG. NO. 5245276
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAC INC. AND IS NOT TO BE REPRODUCED IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAC INC. IS PROHIBITED.	REV A

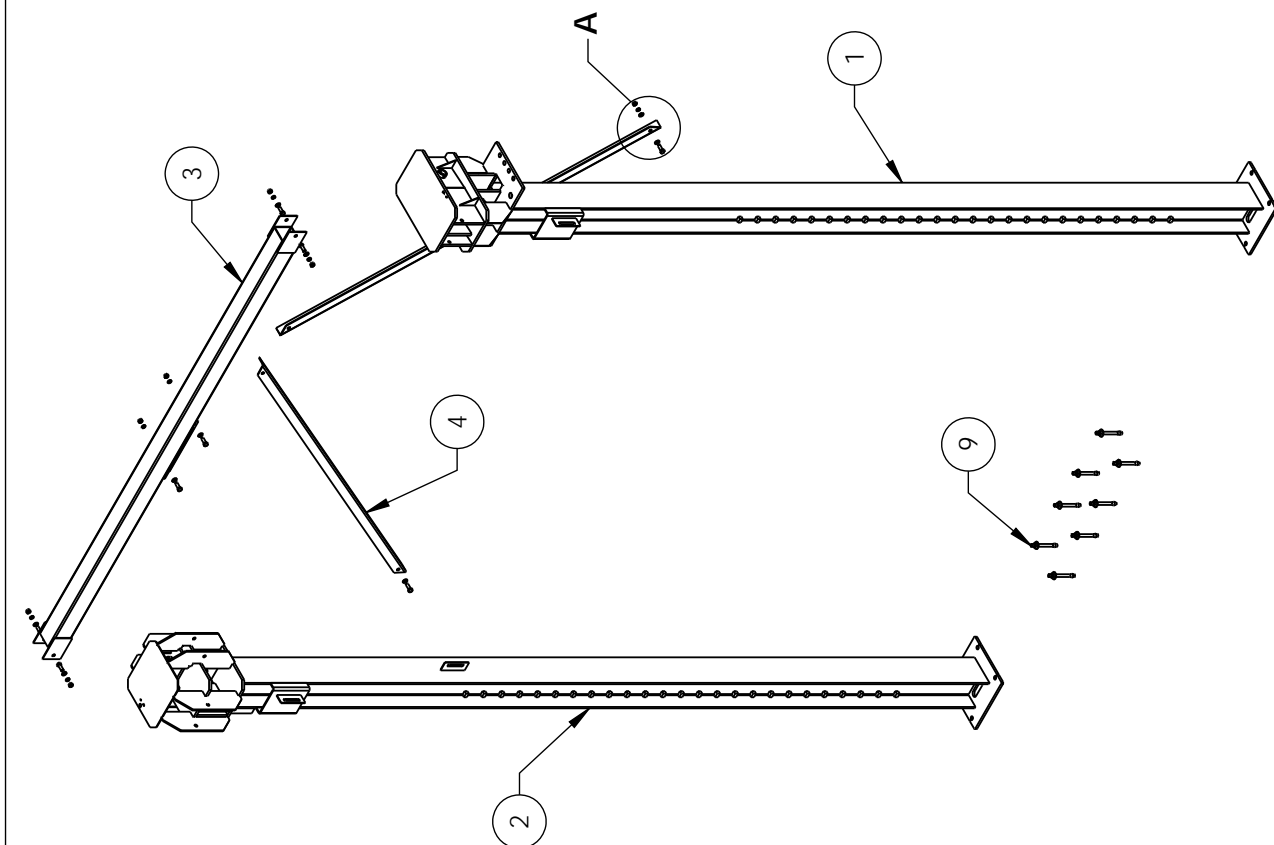
  

MATERIAL: ---	SCALE: 1:60
SIZE: ---	

**BendPac**  
1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

**NOTE: UNLESS OTHERWISE SPECIFIED, SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING**

NEXT ASSEMBLY  
5260191



DETAIL A  
SCALE 1 : 8

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5600825	PL-14000 CLOSE OUT BACK POST WELDMENT	1	A
2	5600826	PL-14000 CLOSE OUT FRONT POST WELDMENT	1	A
3	5600794	PL-14000XL LONG CROSS TUBE WELDMENT	1	A
4	5721126	PL-14000XL SIDE ANGLE	2	A
5	5545342	WASHER M18 FLAT	10	--
6	5545350	WASHER M18 x 28 SL	8	--
7	5535202	NUT M18 x 2.5 CL 8.8	8	--
8	5530319	HHB M18 x 2.5 x 50 CL 8.8	8	--
9	5530308	AB 3/4" x 7"	8	--

DO NOT SCALE DRAWING	NAME	DATE
DIMENSIONS ARE IN MM	TM	01/16/2014
	CHECKED	

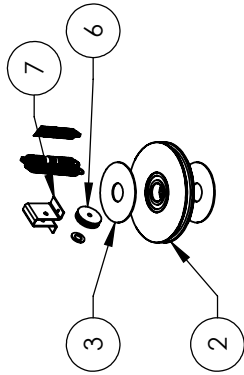
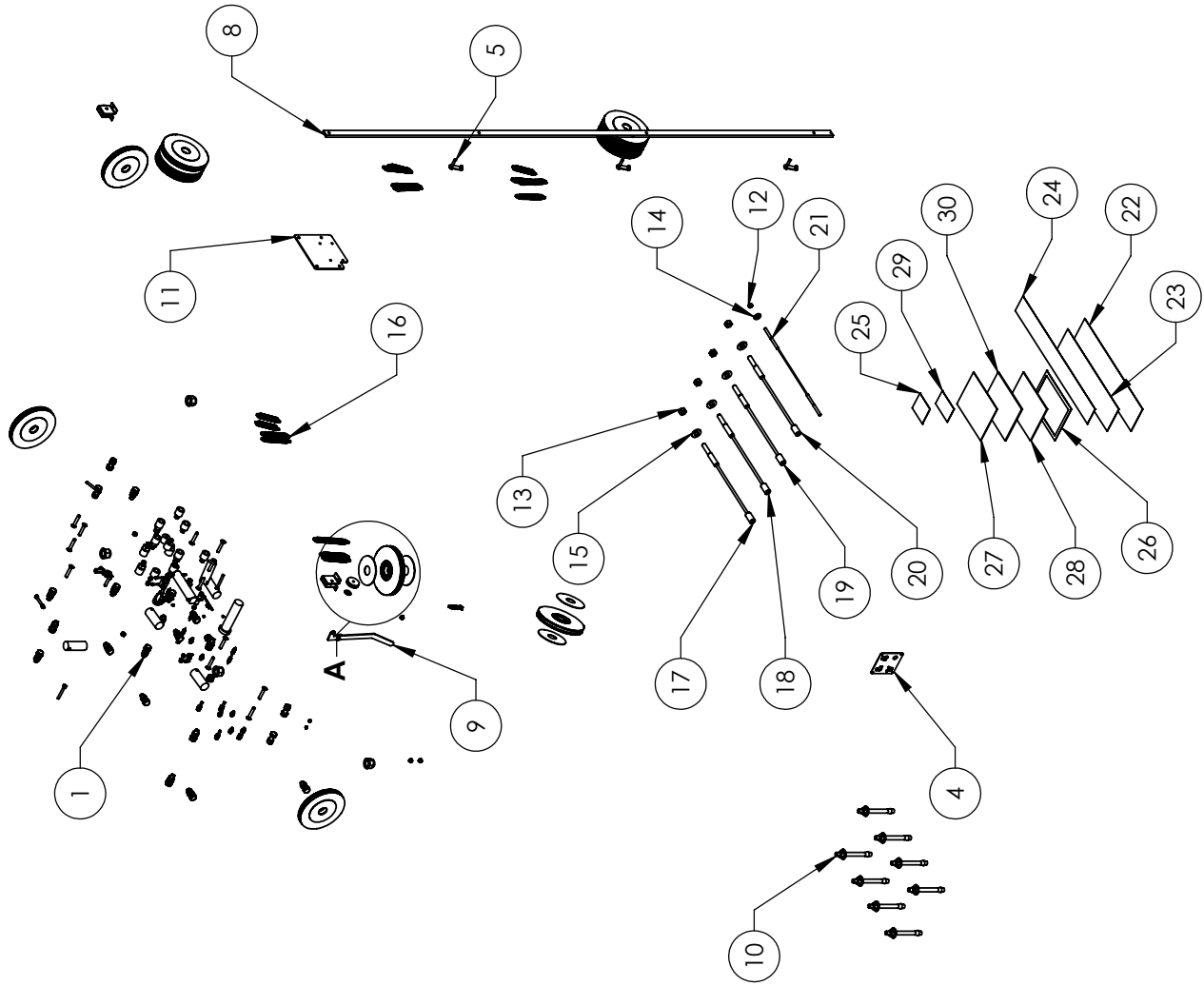
THIRD ANGLE PROJECTION	TITLE: PL-14000XL CLOSEOUT LEG SUPERSTRUCTURE VER B
	SIZE DWG. NO. A 5175521
REVISIONS	REV A

MATERIAL: --- SIZE: --- FOR USE WITH 5260191	1645 LEMONWOOD DR. BENDPAK SANTA PAULA, CA 93060
--	--

**NOTE: UNLESS OTHERWISE SPECIFIED.**  
 1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING





DETAIL A  
SCALE 1:18

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5174730	PL-14000 PARTS BAG	1	A
2	517503	PL-14000 CROSSTUBE SHEAVE ASSEMBLY	12	A
3	5175340	PL-14000/18000 SHEAVE BEARING SPACER	14	B
4	517538	PL-14000/18000 CONTROL PLATE	4	C
5	5600580	PL-14000/18000 POST LINKAGE WELDMENT	3	C
6	5746223	PL-14000/18000 SAFETY CABLE SHEAVE	2	C
7	5701360	PL-14000/18000 SAFETY SHEAVE BRACKET	2	C
8	5736219	PL-14000 POST SAFETY BAR	2	C
9	5736397	PL-14000/18000 SAFETY HANDLE	8	C
10	5530308	AB 3/4" x 7"	1	A
11	5735767	HD-35 SERIES HD POWER UNIT ADAPTER PLATE	1	A
12	5535012	NUT M12 x 1.75 NL	4	-
13	5535011	NUT M22 x 2.5 NL	4	-
14	5545027	WASHER M12 x 0.37 x 3mm	4	B
15	5545345	WASHER M22 x 50mm FLAT	4	B
16	5540116	SPRING 0.25mm x 178mm	16	A
17	5575401	PL-14000 CABLE ASSEMBLY Ø12 x 8263mm	1	A
18	5595538	PL-14000 CABLE ASSEMBLY Ø12 x 11012mm ST, Ø23mm	1	A
19	5595541	PL-14000XL CABLE ASSEMBLY Ø12 x 12818mm ST, Ø23mm	1	A
20	5595484	PL-14000XL CABLE ASSEMBLY Ø12 x 15342mm	1	A
21	559508	PL-14000XL Ø16 x 12078mm SAFETY CABLE DT	1	A
22	5905375	PL-14000/18000 WARNINGS LABEL	1	-
23	5905370	PL-14000/18000 OPERATION LABEL	1	-
24	5905370	BP LABEL	1	-
25	5905305	MAX CAP DANGER PL-14000	1	-
26	5905385	SAFETY TIPS CARD ALLST 90	1	-
27	5905151	ALIGN OIM OPERATION INSPECTION & MAINTENANCE	1	-
28	5900147	SAFETY MANUAL ALL / SM 93-1	1	-
29	5900151	BENDPAK #90 WARRANTY CARD	1	-
30	5900223	PL-14000/18000 INSTALLATION MANUAL	1	-

DO NOT SCALE DRAWING		NAME	DATE
DRAWN	TM	01/16/2014	
DIMENSIONS ARE IN MM		CHECKED	
THIRD ANGLE PROJECTION			
<b>PROPRIETARY AND CONFIDENTIAL</b> THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. AND IS NOT TO BE REPRODUCED IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. ©			
TITLE:		PL-14000XL PARTS BOX	
SIZE	DWG. NO.	REV	
A	5250283	A	
SCALE: 1:35		SHEET 1 OF 1	

**NOTE: UNLESS OTHERWISE SPECIFIED.**  
1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING

NEXT ASSEMBLY  
5260191



**NOTE: UNLESS OTHERWISE SPECIFIED.**  
T. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING

NEXT ASSEMBLY
5250282
5250283

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5545005	M6 FLAT WASHER	6	---
2	5530027	HHB M6 x 1.0 x 35	2	---
3	5535357	NUT M6 x 1.0 NL	6	---
4	5530093	HHB M6 x 1 x 20	4	---
5	5535013	NUT M10 x 1.5 NL	11	---
6	5530765	HHB M10 x 1.5 x 80	5	---
7	5545350	WASHER M18 x 28 SL	24	---
8	5545342	WASHER M18 FLAT	30	---
9	5535202	NUT M18 x 2.5 CL 8.8	24	---
10	5530319	HHB M18 x 2.5 x 50 CL 8.8	24	---
11	5545177	WASHER 1 1/8" x 7"	4	---
12	5535300	NUT 1 1/8-12 NN	4	---
13	5530116	HHB M12 x 1.75 x 40	1	---
14	5545027	WASHER M12 x Ø37 x 3mm	1	---
15	5535354	NUT M12 x 1.75	2	---
16	5530320	BHPs M4 x 0.7 x 6	4	---
17	5545341	WASHER M10 x Ø20 FLAT	9	---
18	5530760	HEX HEAD BOLT M10x1.25x35	3	---
19	5540003	SPRING Ø16mm x 90mm	1	A
20	5505149	PL-14000 UPPER SHEAVE STACK PIN	1	A
21	5505146	COTTER PIN Ø6 x 95mm	1	A
22	5505150	PL-14000 SINGLE SHEAVE PIN	5	A
23	5745216	PL-14000 CYLINDER BOTTOM CLEVIS PIN	1	A
24	5505715	Ø6 x 75mm COTTER PIN	2	A
25	5540087	PULL SPRING Ø12.7 x 51mm	8	A
26	5535201	NUT M12 x 1.75 COUPLING	1	B
27	5746253	PL-14000/18000 SAFETY CABLE CONNECTOR	1	B
28	5530217	HHB M10 x 1.5 x 58	1	---
29	5734458	PL-14000/18000 SAFETY CABLE SPACER	1	B
30	5545200	WASHER M10 x Ø18 SL	4	---
31	5530167	HHB M10 x 1.5 x 45mm	4	---
32	5535998	NUT M10 x 1.5	4	---
33	5530010	HHB M8 x 1.25 x 25	8	---
34	5535001	NUT M8 x 1.25 NL	8	A
35	5545202	WASHER M8 x Ø15 SL	8	---
36	5545021	WASHER M8 x Ø20 FLAT	8	---
37	5535108	SOCKET SET SCREW M8x1.25x12mm L	1	PRE
38	5535012	NUT M12x1.75 NL	16	---
39	5530289	FHSS M12 x 1.75 x 70	16	---
40	5716194	PL-14000/18000 RAMP GUIDE BUMPER	16	A
41	5736806	PL-14000/18000 BOTTOM RAMP BUMPER SPACER	8	A

DO NOT SCALE DRAWING

DRAWN TM

CHECKED

DATE 01/13/2014

THIRD ANGLE PROJECTION

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. AND IS NOT TO BE REPRODUCED IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. ©

1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

HYDRAULIC JACKS • RAMP JACKS • RAMP SPACERS

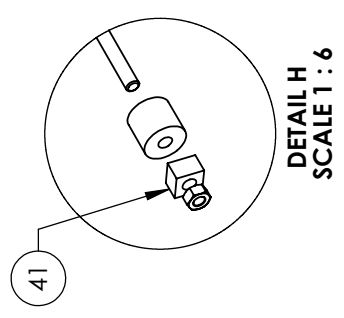
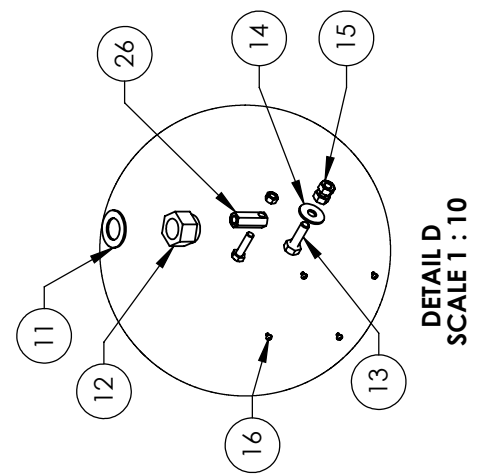
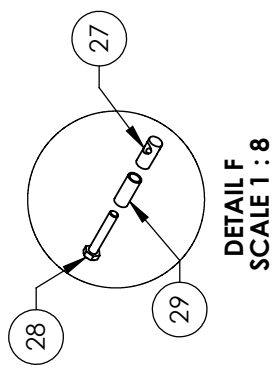
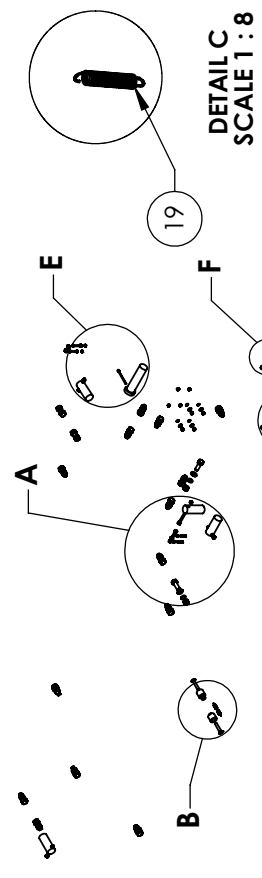
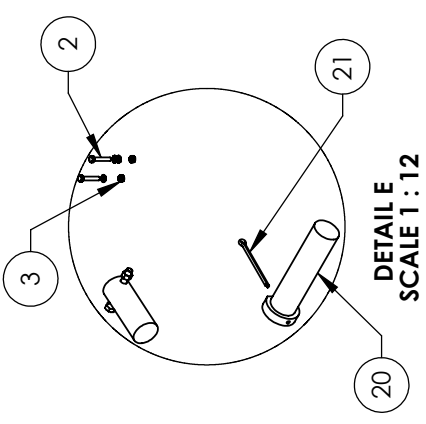
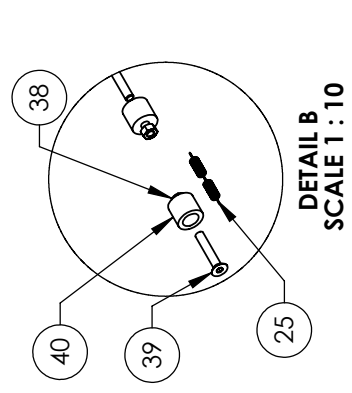
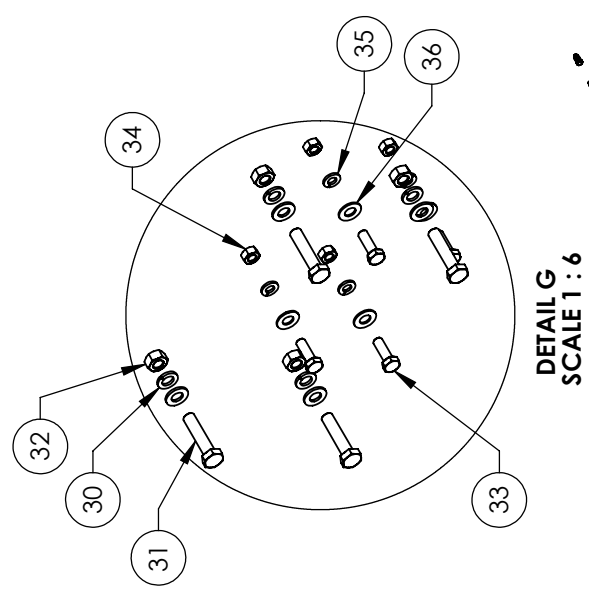
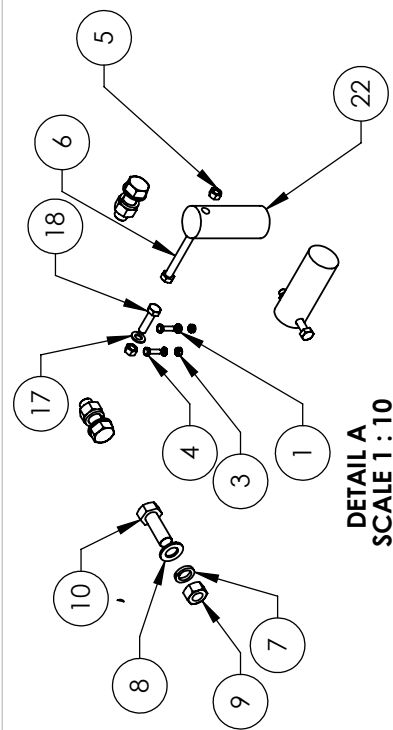
TITLE: PL-14000 PARTS BAG

SIZE DWG. NO. 5174730

REV A

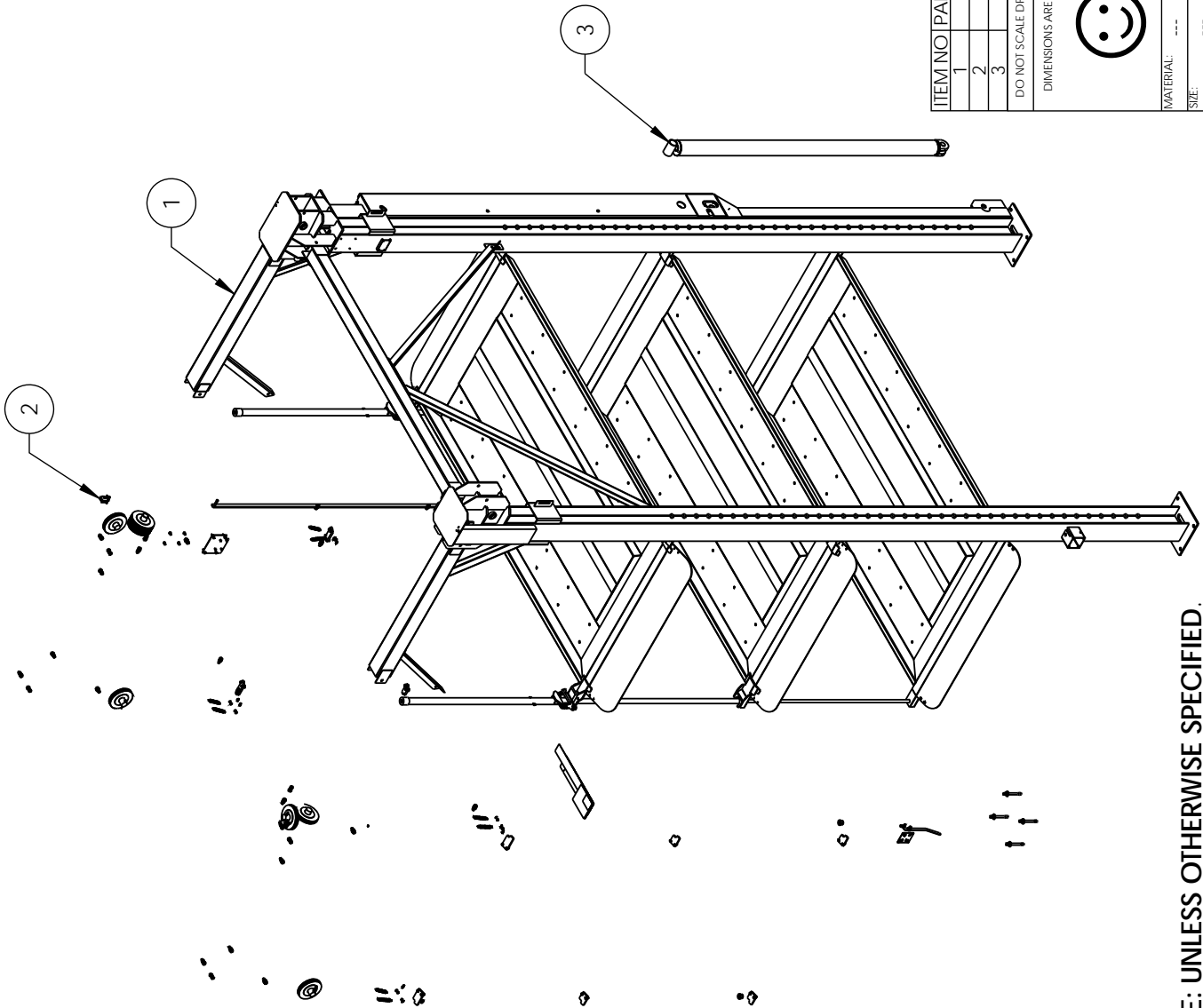
SCALE: 1:35

SHEET 1 OF 2



**BendPak** 1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

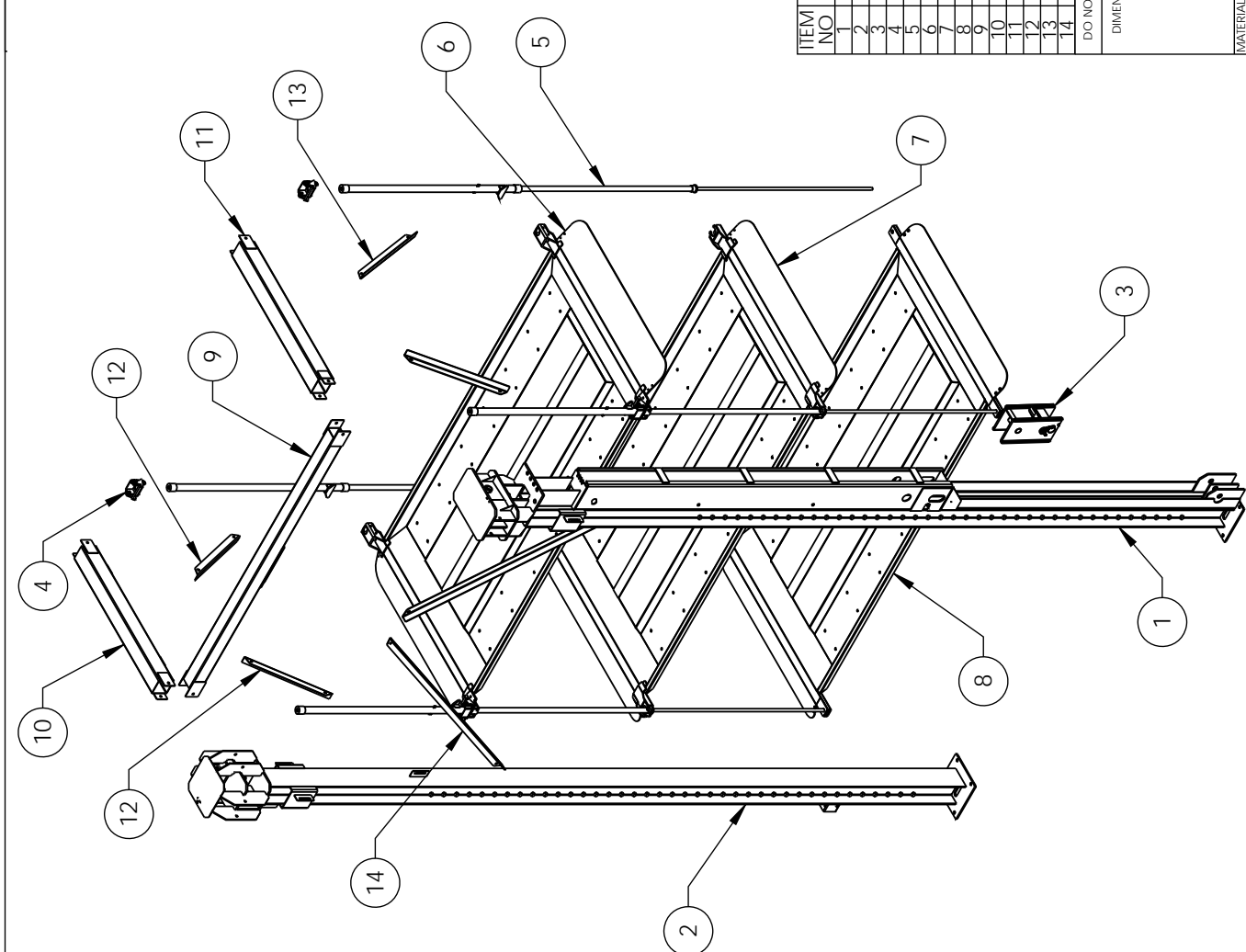
TITLE: PL-14000 PARTS BAG	
SIZE DWG. NO. <b>A</b>	REV <b>A</b>
SCALE: 1:40	
SHEET 2 OF 2	



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5245278	PL-18000 LIFT SUPERSTRUCTURE	1	A
2	5250281	PL-18000 PARTS BOX	1	A
3	5502510	PULL CYLINDER ASSEMBLY Ø5.5 x 120	1	A
DO NOT SCALE DRAWING				
DRAWN		NAME	DATE	
CHECKED		TM	01/10/2014	
THIRD ANGLE PROJECTION				
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. AND IS NOT TO BE REPRODUCED IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.				
MATERIAL: ---			SIZE	REV
---			---	A
TITLE: PL-18000 PRODUCTION LIFT VER C			SCALE: 1:65	SHEET 1 OF 3



**NOTE: UNLESS OTHERWISE SPECIFIED,**  
 1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING



**NOTE: UNLESS OTHERWISE SPECIFIED,**  
 1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5600829	PL-18000 POWER POST WELDMENT	1	A
2	5600830	PL-18000 FRONT CONTROL POST WELDMENT	1	A
3	5215643	PL-18000 PULLBOX ASSEMBLY	1	A
4	5215647	PL-14000/18000 CABLE BREAK SAFETY ASSEMBLY	4	A
5	5215644	PL-18000 RAMP LIFTING ROD ASSEMBLY	4	A
6	5620701	PL-18000 TOP RAMP WELDMENT	1	A
7	5600820	PL-18000 MIDDLE RAMP WELDMENT	1	A
8	5600815	PL-14000/18000 BOTTOM RAMP WELDMENT	1	A
9	5600579	PL-14000/18000 LONG CROSS TUBE WELDMENT	1	B
10	5600584	PL-14000/18000 CROSS TUBE WELDMENT, SHORT FRONT	1	B
11	5600738	PL-14000/18000 CROSS TUBE WELDMENT, SHORT REAR	1	A
12	5721376	PL-14000/18000 FRONT ANGLE	2	C
13	5721375	PL-14000/18000 REAR ANGLE	2	C
14	5721377	PL-14000/18000 SIDE ANGLE	2	C

DO NOT SCALE DRAWING	NAME	DATE
DIMENSIONS ARE IN MM	TM	01/08/2014
	CHECKED	

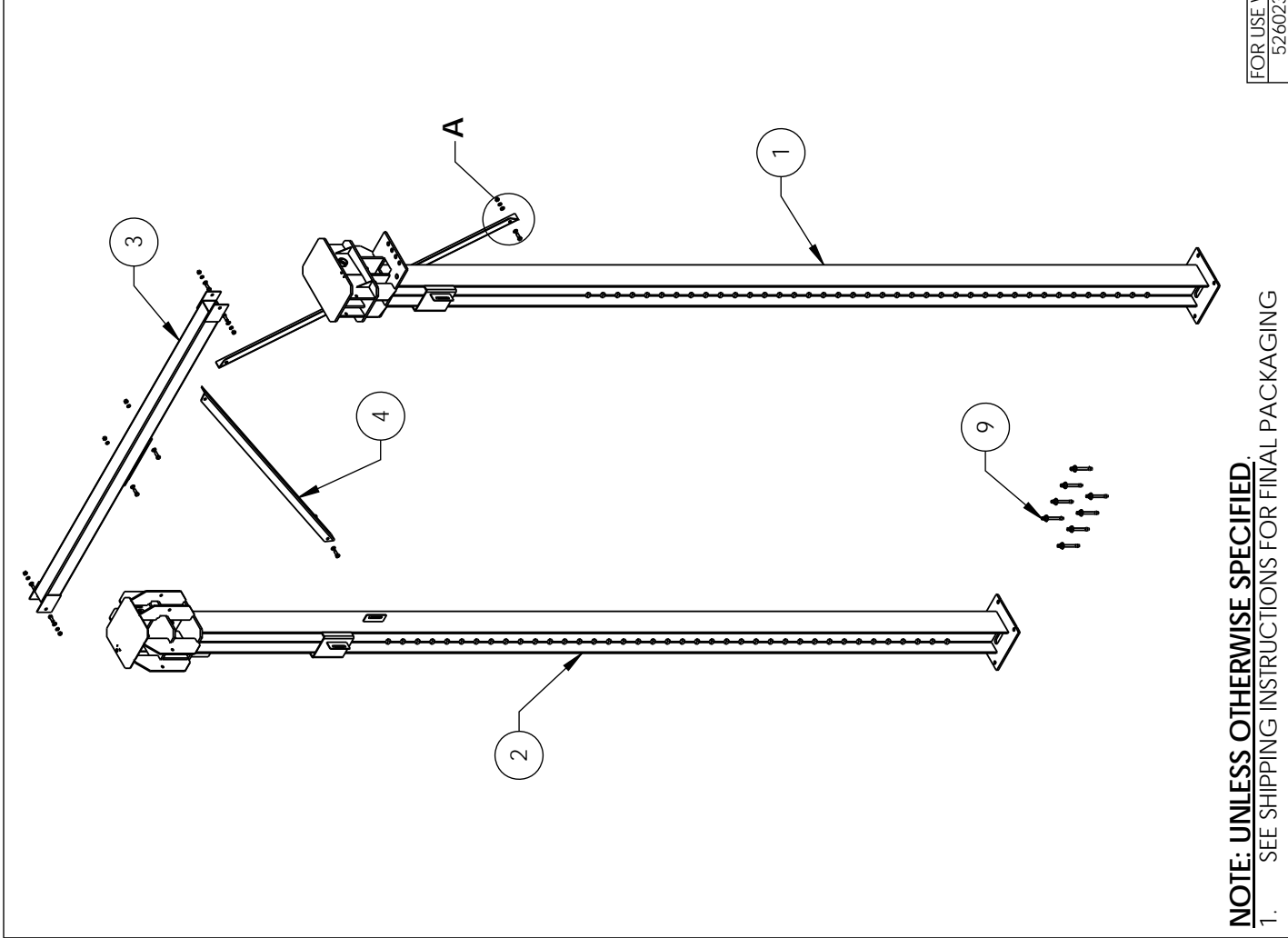
THIRD ANGLE PROJECTION	
TITLE: PL-18000 LIFT SUPERSTRUCTURE SIZE DWG. NO. A 5245278 REV A	

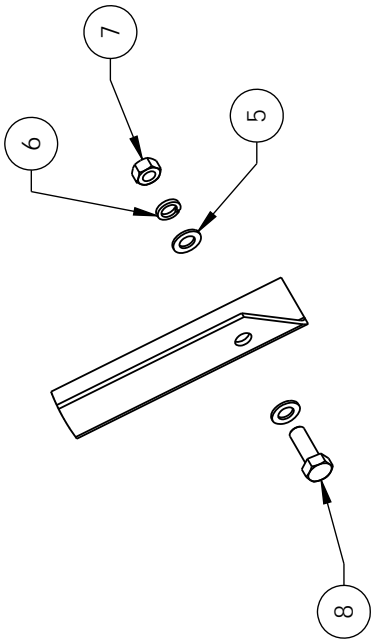
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAC INC. AND IS NOT TO BE REPRODUCED IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAC INC. IS PROHIBITED.	
MATERIAL: ---	SCALE: 1:65
SIZE: ---	SHEET 1 OF 1

**BendPac**  
 1645 LEMONWOOD DR.  
 SANTA PAULA, CA 93060

NEXT ASSEMBLY  
 5260237



**NOTE: UNLESS OTHERWISE SPECIFIED.**  
 1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING



**DETAIL A**  
**SCALE 1:8**

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5600828	PL-18000 CLOSE OUT BACK POST WELDMENT	1	A
2	5600827	PL-18000 CLOSE OUT FRONT POST WELDMENT	1	A
3	5600579	PL-14000/18000 LONG CROSS TUBL WELDMENT	1	B
4	5721377	PL-14000/18000 SIDE ANGLE	2	C
5	5545342	WASHER M18 FLAT	10	-
6	5545350	WASHER M18 x 28 SL	8	-
7	5535202	NUT M18 x 2.5 CL 8.8	8	-
8	5530319	HHB M18 x 2.5 x 50 CL 8.8	8	-
9	5530308	AB 3/4" x 7"	8	-

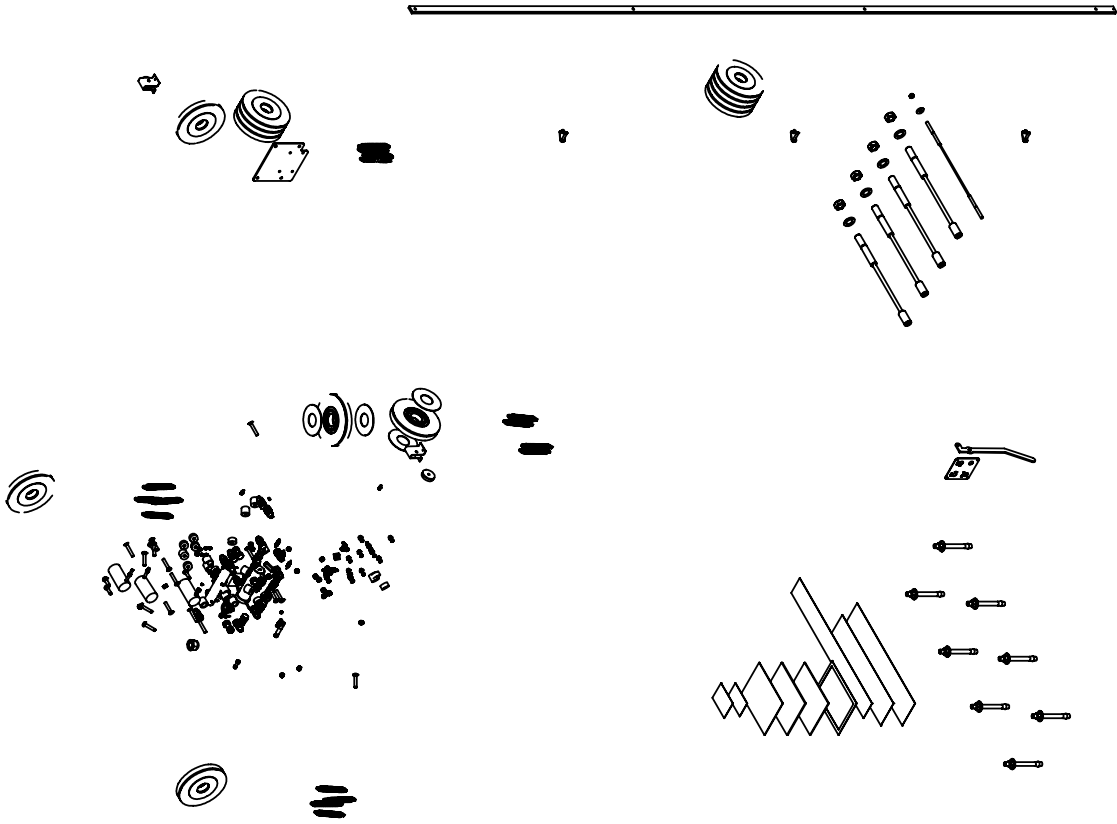
DO NOT SCALE DRAWING		NAME	DATE
DIMENSIONS ARE IN MM		TM	01/14/2014
DRAWN		CHECKED	THIRD ANGLE PROJECTION
MATERIAL		SIZE	
---		---	

1645 LEMONWOOD DR. SANTA PAULA, CA 93060	
TITLE: PL-18000 CLOSEOUT LEG SUPERSTRUCTURE	
SIZE	REV
DWG. NO. A	5175518
SCALE: 1:55	
SHEET 1 OF 1	

FOR USE WITH  
 5260237





ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5174735	PL-18000 PARTS BAG	1	A
2	5736398	PL-14000/18000 CONTROL PLATE	1	C
3	5600580	PL-14000/18000 POST LINKAGE WEDMENT	3	C
4	5701360	PL-14000/18000 SAFETY SHEAVE BRACKET	2	C
5	5746223	PL-14000/18000 SAFETY CABLE SHEAVE	2	C
6	5215646	PL-18000 SHEAVE ASSEMBLY	12	A
7	5735518	PL-18000 SHEAVE BEARING SPACER	14	A
8	5595413	PL-18000 CABLE ASSEMBLY Ø16 x 10261mm	1	B
9	5595537	PL-18000 CABLE ASSEMBLY Ø16 x 13123mm SL. Ø29mm	1	A
10	5595388	PL-18000 CABLE ASSEMBLY Ø16 x 14351mm	1	B
11	5595536	PL-18000 CABLE ASSEMBLY Ø16 x 16856mm, SL Ø29mm	1	A
12	5595386	PL-18000 Ø6 x 13674mm SAFETY CABLE DI	1	B
13	5540111	SPRING Ø25mm x 178mm	16	A
14	5545415	WASHER M30 x 56 FLAT	4	-
15	5535104	NYLOCK NUT M30 x 3.5	4	-
16	5530308	AB 3/4" x 7"	8	-
17	5736397	PL-14000/18000 SAFETY HANDLE	1	C
18	5736484	PL-18000 POST SAFETY BAR	1	A
19	5535012	NUT M12x17.5 NL	1	-
20	5545027	WASHER M12 x Ø37 x 3mm	1	-
21	5735767	HD-35 SERIES HD POWER UNIT ADAPTER PLATE	1	A
22	5900223	PL-14000/18000 INSTALLATION MANUAL	1	-
23	5905375	PL-14000/18000 WARNINGS LABEL	1	-
24	5905370	PL-14000/18000 OPERATION LABEL	1	-
25	5905105	BP LABEL	1	-
26	5905755	MAX CAP DANGER PL-18000	1	-
27	5905151	SAFETY TIPS CARD ALL-ST 90	1	-
28	5900152	ALIGN OIM OPERATION INSPECTION & MAINTENANCE	1	-
29	5900147	SAFETY MANUAL ALL / SM 93-1	1	-
30	5900151	BENDPAK #90 WARRANTY CARD	1	-

DO NOT SCALE DRAWING

DRAWN SH 12/24/2013

CHECKED

NAME DATE

SH 12/24/2013

THIRD ANGLE PROJECTION

PL-18000 PARTS BOX

SIZE DWG. NO. 5250281

REV A

1645 LEMONWOOD DR. SANTA PAULA, CA 93060

BENDPAK INC.

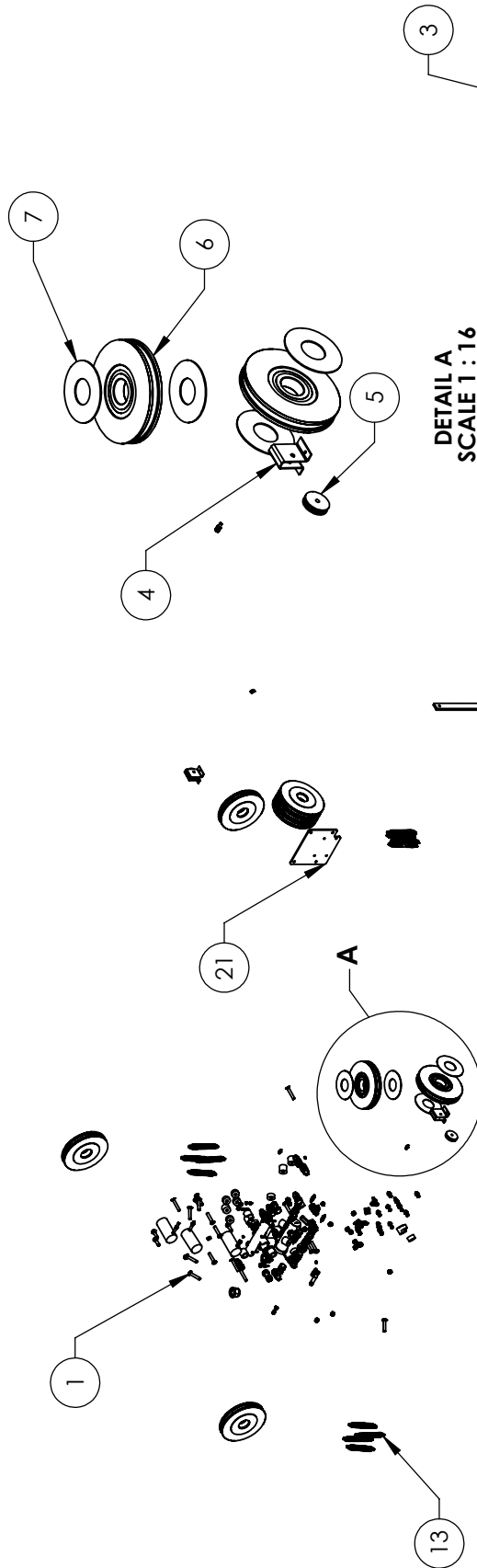
PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. NO PART OF THIS DRAWING IS TO BE REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.

5250237

5260237

NOTE: UNLESS OTHERWISE SPECIFIED.  
1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING

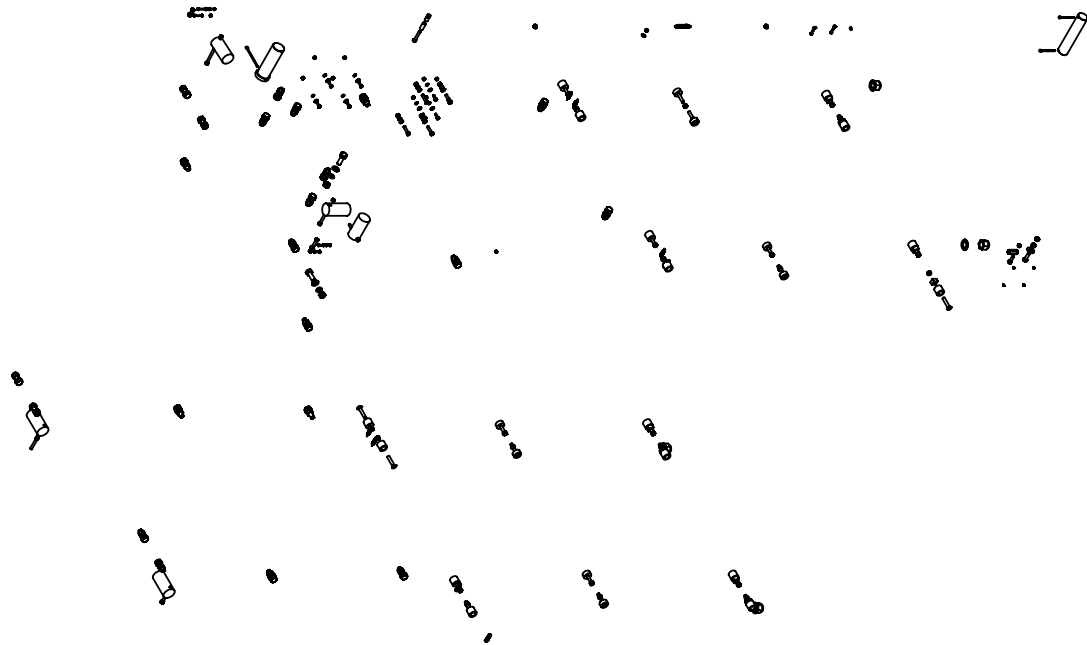


DETAIL A  
SCALE 1:16

DETAIL B  
SCALE 1:4

**BP BendPak**  
1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

TITLE: PL-18000 PARTS BOX		
SIZE	DWG. NO.	REV
A	5250281	A
SCALE: 1:35		SHEET 2 OF 2



**NOTE: UNLESS OTHERWISE SPECIFIED.**  
1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING

NEXT ASSEMBLY  
5250281

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5545005	M6 FLAT WASHER	6	---
2	5530027	HHB M6 x 1.0 x 35	2	---
3	5535557	NUT M6 x 1.0 NL	6	---
4	5530093	HHB M6 x 1 x 20	4	---
5	5535013	NUT M10 x 1.5 NL	11	---
6	5530748	HHB M10 x 1.5 x 100mmL	5	---
7	5545350	WASHER M18 x 28 SL	24	---
8	5545342	WASHER M18 FLAT	30	---
9	5535202	NUT M18 x 2.5 CL 8.8	24	---
10	5530319	HHB M18 x 2.5 x 50 CL 8.8	24	---
11	5545177	WASHER 1-1/8" x 2"	4	---
12	5535300	NUT 1-1/8-12 NN	4	---
13	5530116	HHB M12 x 1.75 x 40	1	---
14	5545027	WASHER M12 x Ø37 x 3mm	1	---
15	5535354	NUT M12 x 1.75	2	---
16	5530320	BHPS M4 x 0.7 x 6	4	---
17	5545341	WASHER M10 x Ø20 FLAT	9	---
18	5530760	HEX HEAD BOLT M10x1.25x35	3	---
19	5540003	SPRING Ø16mm x 90mm	1	A
20	5505056	PL-18000 PULLBOX CLEVIS PIN	1	A
21	5505057	COTTER PIN Ø6.3 x 120mm	1	---
22	5505054	PL-18000 SINGLE SHEAVE PIN	5	A
23	5746273	PL-18000 CYLINDER BOTTOM CLEVIS PIN	1	A
24	5505715	Ø6 x 75mm COTTER PIN	2	---
25	5540087	PULL SPRING Ø12.7 x 51mm	8	A
26	5535201	NUT M12 x 1.75 COUPLING	1	B
27	5746253	PL-14000/18000 SAFETY CABLE CONNECTOR	1	B
28	5530217	HHB M10 x 1.5 x 58	1	---
29	5736458	PL-14000/18000 SAFETY CABLE SPACER	1	B
30	5545200	WASHER M10 x Ø18 SL	4	---
31	5530167	HHB M10 x 1.5 x 45mm	4	---
32	5535998	NUT M10 x 1.5	4	---
33	5530010	HHB M8 x 1.25 x 25	8	---
34	5535001	NUT M8 x 1.25 NL	8	A
35	5545202	WASHER M8 x Ø15 SL	8	---
36	5545021	WASHER M8 x Ø20 FLAT	8	---
37	5535108	SOCKET SET SCREW M8x1.25x12mm L	1	PRE
38	5535012	NUT M12x1.75 NL	24	---
39	5530289	FHSS M12 x 1.75 x 70	24	---
40	5716194	PL-14000/18000 RAMP GUIDE BUMPER	16	A
41	5716193	PL-18000 MIDDLE RAMP GUIDE BUMPER	8	A
42	5736806	PL-14000/18000 BOTTOM RAMP BUMPER SPACER	8	A

DO NOT SCALE DRAWING

DRAWN TM

CHECKED

DATE 01/08/2014

THIRD ANGLE PROJECTION

PL-18000 PARTS BAG

SIZE DWG. NO. 5174735

REV A

1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

PROPRIETARY AND CONFIDENTIAL

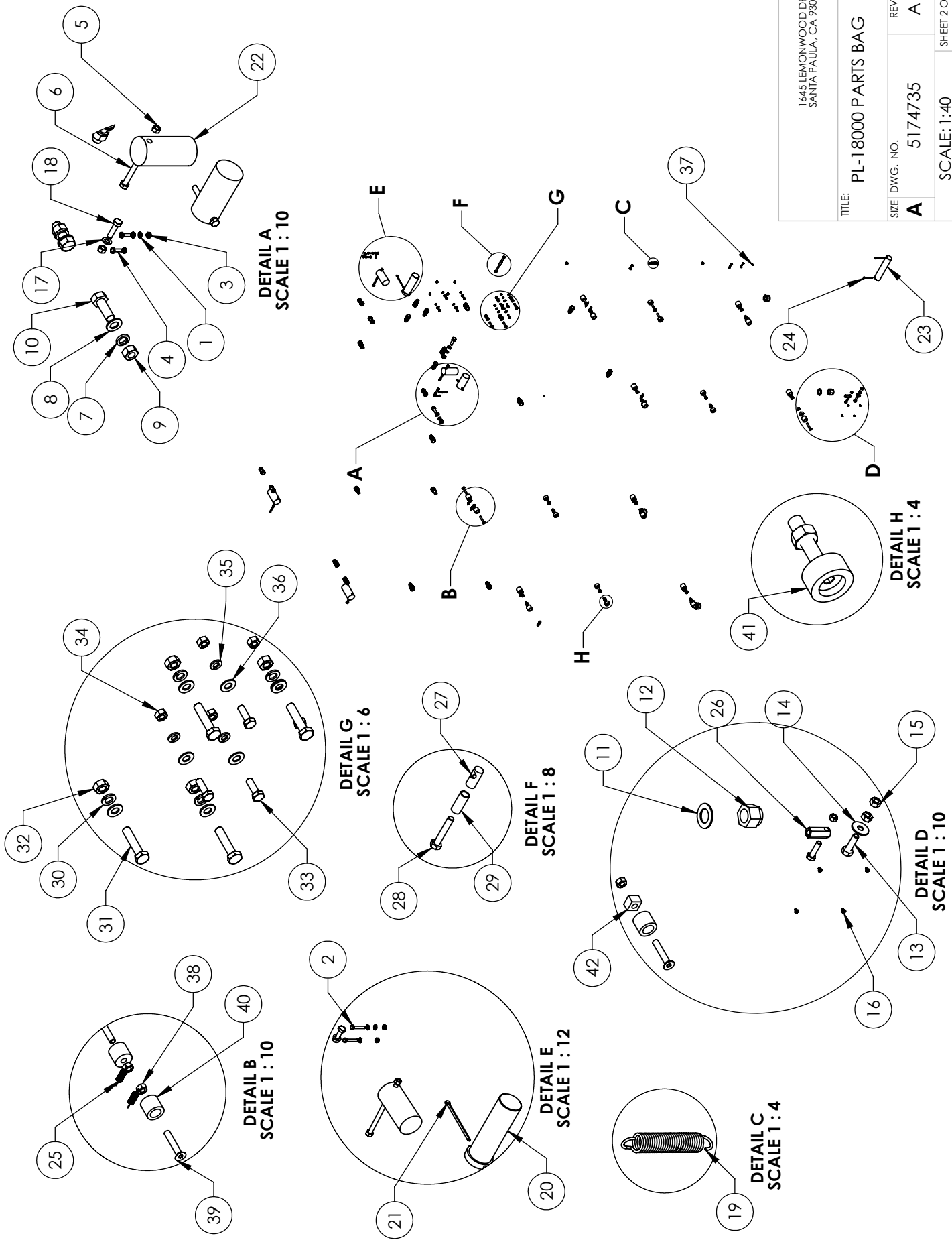
THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. AND IS NOT TO BE REPRODUCED IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.

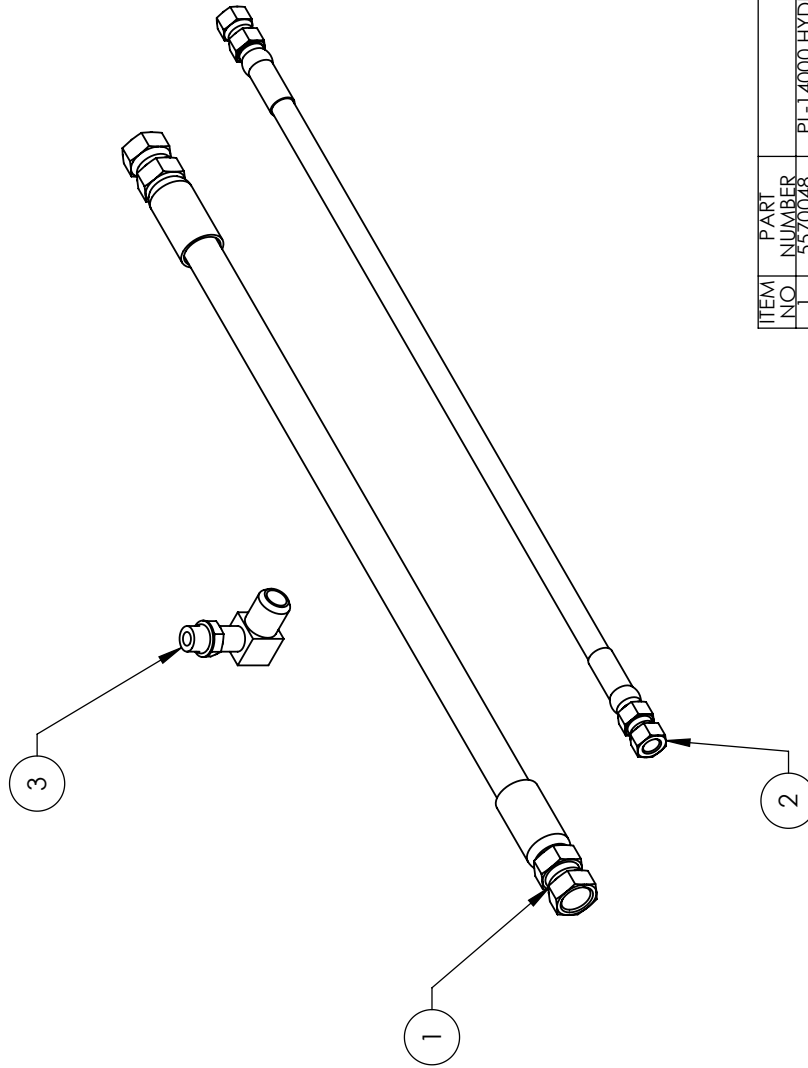
5250281

5250281

1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

TITLE: PL-18000 PARTS BAG	
SIZE DWG. NO.	REV
A 5174735	A
SCALE: 1:40	
SHEET 2 OF 2	



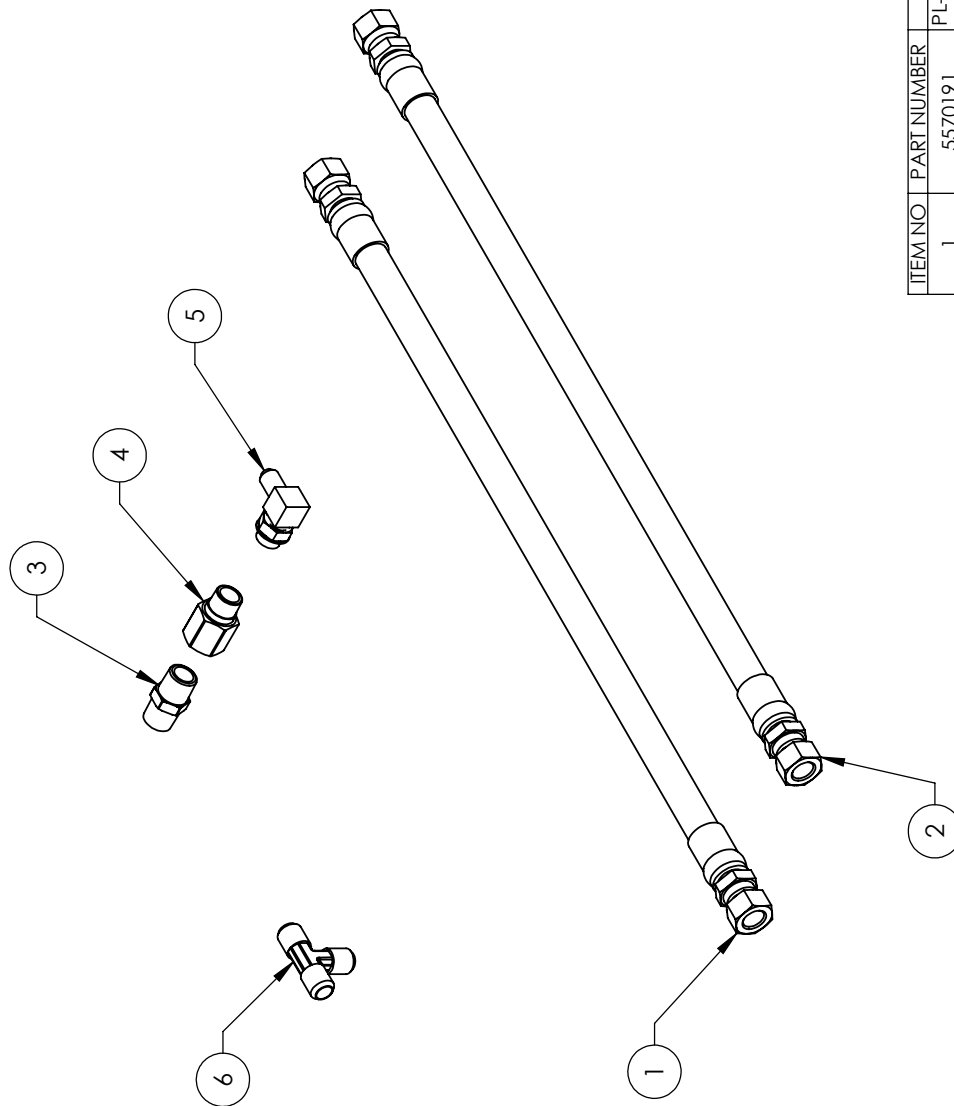


ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5570048	PL-14000 HYDRAULIC HOSE ASSY Ø12 X 6553mm DS	1	A
2	5570047	PL-14000 HYDRAULIC HOSE ASSEMBLY Ø6.4 x 4115mm DS	1	A
3	5550005	FIG ELB-08 JIC-06L ORB	1	A

DO NOT SCALE DRAWING		NAME	DATE
DRAWN		TM	08/29/2014
CHECKED		THIRD ANGLE PROJECTION	
DIMENSIONS ARE IN MM		TITLE: PL-14000 SINGLE UNIT HYDRAULIC KIT SIZE DWG. NO. 5210077 REV A	
NEXT ASSEMBLY ACCESSORY		SCALE: 1:4 SHEET 1 OF 1	

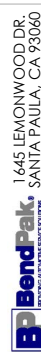
1645 LEMONWOOD DR.  
 SANTA PAULA, CA 93060

**NOTE: UNLESS OTHERWISE SPECIFIED.**  
 1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5570191	PL-14000 HYDRAULIC HOSE ASSEMBLY Ø10 x 2200mm DS	1	A
2	5570192	PL-14000 HYDRAULIC HOSE ASSEMBLY Ø10 x 4450mm DS	1	A
3	5550128	FIG NPL-06 NPT x-06 NPT	1	-
4	5550142	FIG NPL-06 ORB x-06 F NPT	1	-
5	5550103	FIG ELB-04 JIC-06 ORB	1	-
6	5550175	FIG TEE-06 JIC-06 JIC-06 JIC	1	-

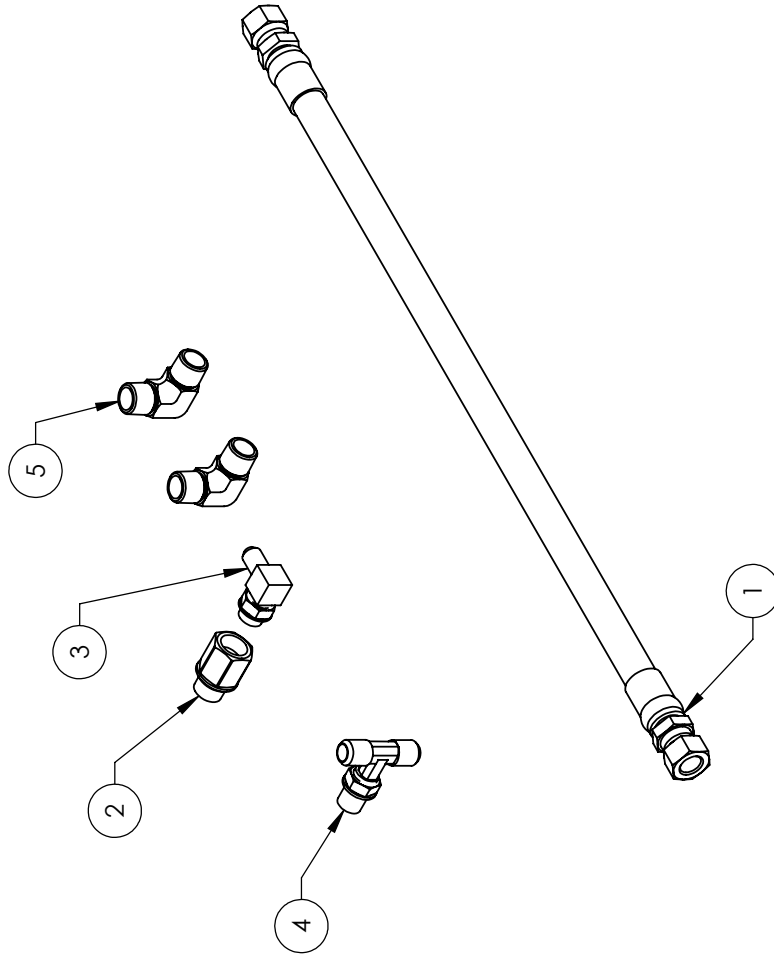
DO NOT SCALE DRAWING		NAME	DATE
DRAWN	TM		12/30/2011
CHECKED			
THIRD ANGLE PROJECTION			
		<b>PROPRIETARY AND CONFIDENTIAL</b> THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. AND IS NOT TO BE REPRODUCED IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC.	
MATERIAL: ---		TITLE: PL-14000 MULTIPLE UNIT HYDRAULIC ADD ON KIT SIZE DWG. NO. 5210215 REV A	
SIZE: ---		SCALE: 1:4	



**NOTE: UNLESS OTHERWISE SPECIFIED.**  
 1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING

NEXT ASSEMBLY  
ACCESSORY





ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5570193	PL-14000 HYDRAULIC HOSE ASSEMBLY Ø10 x 2500mm DS	1	A
2	5550197	FIG NPL-06 F ORB x-08 ORB	1	-
3	5550103	FIG ELB-04 JIC-06 ORB	1	-
4	5550174	FIG TEE-06 JIC-06 ORB	1	-
5	5550173	FIG ELB-06 JIC x-06 JIC	2	-

DO NOT SCALE DRAWING		NAME	DATE
DRAWN	TM	12/30/2011	
CHECKED			

THIRD ANGLE PROJECTION	

MATERIAL: ---	
SIZE: ---	---

--	--

--	--

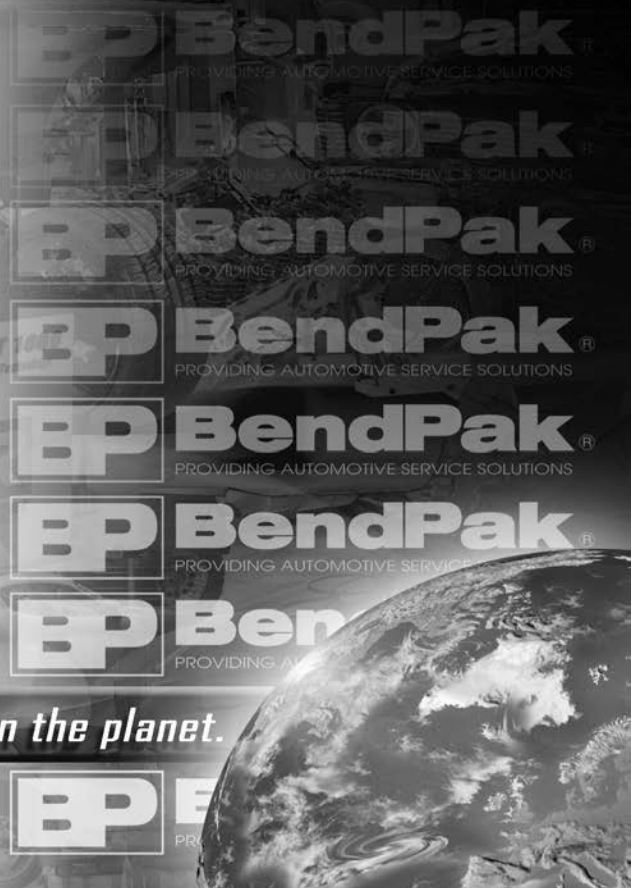
TITLE: PL-14000 MULTIPLE UNIT HYDRAULIC CLOSEOUT KIT	
SIZE	DWG. NO.
A	5210220
REV	A

SCALE: 1:4	
SHEET 1 OF 1	

**NOTE: UNLESS OTHERWISE SPECIFIED.**  
 1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING

NEXT ASSEMBLY  
 ACCESSORY



*The best automotive service equipment on the planet.*

**For Parts Or Service  
Contact:**

**BendPak Inc. / Ranger Products  
1645 Lemonwood Dr.  
Santa Paula, CA. 93060**

**Tel: 1-805-933-9970  
Toll Free: 1-800-253-2363  
Fax: 1-805-933-9160**

**[www.bendpak.com](http://www.bendpak.com)**

p/n 5900223

